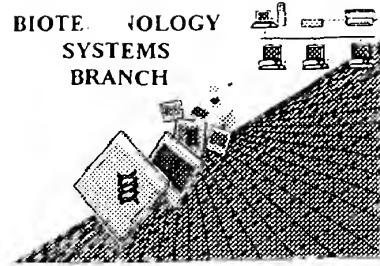


RAW SEQUENCE LISTING
ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/759,508

Source: OIPE

Date Processed by STIC: 1-29-01

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST 25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO).

Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be downloaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

BEST AVAILABLE COPY

OIPE

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
 TIME: 13:24:52

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

4 <110> APPLICANT: Fishman, Mark C.
 6 <120> TITLE OF INVENTION: Methods for Diagnosing and Treating
 7 Heart Disease
 9 <130> FILE REFERENCE: 00786/381002
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/759,508
 C--> 11 <141> CURRENT FILING DATE: 2001-01-12
 11 <150> PRIOR APPLICATION NUMBER: US 60/175,787
 12 <151> PRIOR FILING DATE: 2000-01-12
 14 <160> NUMBER OF SEQ ID NOS: 11
 16 <170> SOFTWARE: FastSEQ for Windows Version 4.0

Does Not Comply
 Corrected Diskette Needed
 See p. 27

ERRORED SEQUENCES

1391 <210> SEQ ID NO: 2
 1392 <211> LENGTH: 26926
 1393 <212> TYPE: PRT
 1394 <213> ORGANISM: HOMO sapiens
 1396 <400> SEQUENCE: 2
 1397 Met Thr Thr Gin Ala Pro Thr Phe Thr Gln Pro Leu Gln Ser Val Val
 1398 1 5 10 15
 1399 Val Leu Glu Gly Ser Thr Ala Thr Phe Glu Ala His Ile Ser Gly Phe
 1400 20 25 30
 1401 Pro Val Pro Glu Val Ser Trp Phe Arg Asp Gly Gln Val Ile Ser Thr
 1402 35 40 45
 1403 Ser Thr Leu Pro Gly Val Glu Ile Ser Phe Ser Asp Gly Arg Ala Lys
 1404 50 55 60
 1405 Leu Thr Ile Pro Ala Val Thr Lys Ala Asn Ser Gly Arg Tyr Ser Leu
 1406 65 70 75 80
 1407 Lys Ala Thr Asn Gly Ser Gly Gln Ala Thr Ser Thr Ala Glu Leu Leu
 1408 85 90 95
 1409 Val Lys Ala Glu Thr Ala Pro Pro Asn Phe Val Gln Arg Leu Gln Ser
 1410 100 105 110
 1411 Met Thr Val Arg Gln Gly Ser Gln Val Arg Leu Gln Val Arg Val Thr
 1412 115 120 125
 1413 Gly Ile Pro Thr Pro Val Val Lys Phe Tyr Arg Asp Gly Ala Glu Ile
 1414 130 135 140
 1415 Gln Ser Ser Leu Asp Phe Gln Ile Ser Gln Glu Gly Asp Leu Tyr Ser
 1416 145 150 155 160
 1417 Leu Leu Ile Ala Glu Ala Tyr Pro Glu Asp Ser Gly Thr Tyr Ser Val
 1418 165 170 175
 1419 Asn Ala Thr Asn Ser Val Gly Arg Ala Thr Ser Thr Ala Glu Leu Leu
 1420 180 185 190
 1421 Val Gln Gly Glu Glu Glu Val Pro Ala Lys Lys Thr Lys Thr Ile Val
 1422 195 200 205
 1423 Ser Thr Ala Gln Ile Ser Glu Ser Arg Gln Thr Arg Ile Glu Lys Lys
 1424 210 215 220

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

1425 Ile Glu Ala His Phe Asp Ala Arg Ser Ile Ala Thr Val Glu Met Val
 1426 225 230 235 240
 1427 Ile Asp Gly Ala Ala Gly Gln Gln Leu Pro His Lys Thr Pro Pro Arg
 1428 245 250 255
 1429 Ile Pro Pro Lys Pro Lys Ser Arg Ser Pro Thr Pro Pro Ser Ile Ala
 1430 260 265 270
 1431 Ala Lys Ala Gln Leu Ala Arg Gln Gln Ser Pro Ser Pro Ile Arg His
 1432 275 280 285
 1433 Ser Pro Ser Pro Val Arg His Val Arg Ala Pro Thr Pro Ser Pro Val
 1434 290 295 300
 1435 Arg Ser Val Ser Pro Ala Ala Arg Ile Ser Thr Ser Pro Ile Arg Ser
 1436 305 310 315 320
 1437 Val Arg Ser Pro Leu Leu Met Arg Lys Thr Gln Ala Ser Thr Val Ala
 1438 325 330 335
 1439 Thr Gly Pro Glu Val Pro Pro Pro Trp Lys Gln Glu Gly Tyr Val Ala
 1440 340 345 350
 1441 Ser Ser Ser Glu Ala Glu Met Arg Glu Thr Thr Leu Thr Thr Ser Thr
 1442 355 360 365
 1443 Gln Ile Arg Thr Glu Glu Arg Trp Glu Gly Arg Tyr Gly Val Gln Glu
 1444 370 375 380
 1445 Gln Val Thr Ile Ser Gly Ala Ala Gly Ala Ala Ala Ser Val Ser Ala
 1446 385 390 395 400
 1447 Ser Ala Ser Tyr Ala Ala Glu Ala Val Ala Thr Gly Ala Lys Glu Val
 1448 405 410 415
 1449 Lys Gln Asp Ala Asp Lys Ser Ala Ala Val Ala Thr Val Val Ala Ala
 1450 420 425 430
 1451 Val Asp Met Ala Arg Val Arg Glu Pro Val Ile Ser Ala Val Glu Gln
 1452 435 440 445
 1453 Thr Ala Gln Arg Thr Thr Thr Ala Val His Ile Gln Pro Ala Gln
 1454 450 455 460
 1455 Glu Gln Val Arg Lys Glu Ala Glu Lys Thr Ala Val Thr Lys Val Val
 1456 465 470 475 480
 1457 Val Ala Ala Asp Lys Ala Lys Glu Gln Glu Leu Lys Ser Arg Thr Lys
 1458 485 490 495
 1459 Glu Ile Ile Thr Thr Lys Gln Glu Gln Met His Val Thr His Glu Gln
 1460 500 505 510
 1461 Ile Arg Lys Glu Thr Glu Lys Thr Phe Val Pro Lys Val Val Ile Ser
 1462 515 520 525
 1463 Ala Ala Lys Ala Lys Glu Gln Glu Thr Arg Ile Ser Glu Glu Ile Thr
 1464 530 535 540
 1465 Lys Lys Gln Lys Gln Val Thr Gln Glu Ala Ile Met Lys Glu Thr Arg
 1466 545 550 555 560
 1467 Lys Thr Val Val Pro Lys Val Ile Val Ala Thr Pro Lys Val Lys Glu
 1468 565 570 575
 1469 Gln Asp Leu Val Ser Arg Gly Arg Glu Gly Ile Thr Thr Lys Arg Glu
 1470 580 585 590
 1471 Gln Val Glu Ile Thr Gln Glu Lys Met Arg Lys Glu Ala Glu Lys Thr
 1472 595 600 605
 1473 Ala Leu Ser Thr Ile Ala Val Ala Thr Ala Lys Ala Lys Glu Gln Glu

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

1474 610 615 620
 1475 Thr Ile Leu Arg Thr Arg Glu Thr Met Ala Thr Arg Gln Glu Gln Ile
 1476 625 630 635 640
 1477 Gin Val Thr His Gly Lys Val Asp Val Gly Lys Lys Ala Glu Ala Val
 1478 645 650 655
 1479 Ala Thr Val Val Ala Ala Val Asp Gln Ala Arg Val Arg Glu Pro Arg
 1480 660 665 670
 1481 Glu Pro Gly His Leu Glu Ser Tyr Ala Gln Gln Thr Thr Leu Glu
 1482 675 680 685
 1483 Tyr Gly Tyr Lys Glu Arg Ile Ser Ala Ala Lys Val Ala Glu Pro Pro
 1484 690 695 700
 1485 Gln Arg Pro Ala Ser Glu Pro His Val Val Pro Lys Ala Val Lys Pro
 1486 705 710 715 720
 1487 Arg Val Ile Gln Ala Pro Ser Glu Thr His Ile Lys Thr Thr Asp Gin
 1488 725 730 735
 1489 Lys Gly Met His Ile Ser Ser Gln Ile Lys Lys Thr Thr Asp Leu Thr
 1490 740 745 750
 1491 Thr Glu Arg Leu Val His Val Asp Lys Arg Pro Arg Thr Ala Ser Pro
 1492 755 760 765
 1493 His Phe Thr Val Ser Lys Ile Ser Val Pro Lys Thr Glu His Gly Tyr
 1494 770 775 780
 1495 Glu Ala Ser Ile Ala Gly Ser Ala Ile Ala Thr Leu Gln Lys Glu Leu
 1496 785 790 795 800
 1497 Ser Ala Thr Ser Ser Ala Gln Lys Ile Thr Lys Ser Val Lys Ala Pro
 1498 805 810 815
 1499 Thr Val Lys Pro Ser Glu Thr Arg Val Arg Ala Glu Pro Thr Pro Leu
 1500 820 825 830
 1501 Pro Gln Phe Pro Phe Ala Asp Thr Pro Asp Thr Tyr Lys Ser Glu Ala
 1502 835 840 845
 1503 Gly Val Glu Val Lys Lys Glu Val Gly Val Ser Ile Thr Gly Thr Thr
 1504 850 855 860
 1505 Val Arg Glu Glu Arg Phe Glu Val Leu His Gly Arg Glu Ala Lys Val
 1506 865 870 875 880
 1507 Thr Glu Thr Ala Arg Val Pro Ala Pro Val Glu Ile Pro Val Thr Pro
 1508 885 890 895
 1509 Pro Thr Leu Val Ser Gly Leu Lys Asn Val Thr Val Ile Glu Gly Glu
 1510 900 905 910
 1511 Ser Val Thr Leu Glu Cys His Ile Ser Gly Tyr Pro Ser Pro Thr Val
 1512 915 920 925
 1513 Thr Trp Tyr Arg Glu Asp Tyr Gln Ile Glu Ser Ser Ile Asp Phe Gln
 1514 930 935 940
 1515 Ile Thr Phe Gln Ser Gly Ile Ala Arg Leu Met Ile Arg Glu Ala Phe
 1516 945 950 955 960
 1517 Ala Glu Asp Ser Gly Arg Phe Thr Cys Ser Ala Val Asn Glu Ala Gly
 1518 965 970 975
 1519 Thr Val Ser Thr Ser Cys Tyr Leu Ala Val Gln Val Ser Glu Glu Phe
 1520 980 985 990
 1521 Glu Lys Glu Thr Thr Ala Val Thr Glu Lys Phe Thr Thr Glu Glu Lys
 1522 995 1000 1005

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

1523 Arg Phe Val Glu Ser Arg Asp Val Val Met Thr Asp Thr Ser Leu Thr
1524 1010 1015 1020
1525 Glu Glu Gln Ala Gly Pro Gly Glu Pro Ala Ala Pro Tyr Phe Ile Thr
1526 1025 1030 1035 1040
1527 Lys Pro Val Val Gln Lys Leu Val Glu Gly Gly Ser Val Val Phe Gly
1528 1045 1050 1055
1529 Cys Gln Val Gly Gly Asn Pro Lys Pro His Val Tyr Trp Lys Lys Ser
1530 1060 1065 1070
1531 Gly Val Pro Leu Thr Thr Gly Tyr Arg Tyr Lys Val Ser Tyr Asn Lys
1532 1075 1080 1085
1533 Gln Thr Gly Glu Cys Lys Leu Val Ile Ser Met Thr Phe Ala Asp Asp
1534 1090 1095 1100
1535 Ala Gly Glu Tyr Thr Ile Val Val Arg Asn Lys His Gly Glu Thr Ser
1536 1105 1110 1115 1120
1537 Ala Ser Ala Ser Leu Leu Glu Glu Ala Asp Tyr Glu Leu Leu Met Lys
1538 1125 1130 1135
1539 Ser Gln Gln Glu Met Leu Tyr Gln Thr Gin Val Thr Ala Phe Val Gln
1540 1140 1145 1150
1541 Glu Pro Glu Val Gly Glu Thr Ala Pro Gly Phe Val Tyr Ser Glu Tyr
1542 1155 1160 1165
1543 Glu Lys Glu Tyr Glu Lys Glu Gln Ala Leu Ile Arg Lys Lys Met Ala
1544 1170 1175 1180
1545 Lys Asp Thr Val Val Arg Thr Tyr Val Glu Asp Gln Glu Phe His
1546 1185 1190 1195 1200
1547 Ile Ser Ser Phe Glu Glu Arg Leu Ile Lys Glu Ile Glu Tyr Arg Ile
1548 1205 1210 1215
1549 Ile Lys Thr Leu Glu Glu Leu Leu Glu Glu Asp Gly Glu Glu Lys
1550 1220 1225 1230
1551 Met Ala Val Asp Ile Ser Glu Ser Glu Ala Val Glu Ser Gly Phe Asp
1552 1235 1240 1245
1553 Leu Arg Ile Lys Asn Tyr Arg Ile Leu Glu Gly Met Gly Val Thr Phe
1554 1250 1255 1260
1555 His Cys Lys Met Ser Gly Tyr Pro Leu Pro Lys Ile Ala Trp Tyr Lys
1556 1265 1270 1275 1280
1557 Asp Gly Lys Arg Ile Lys His Gly Glu Arg Tyr Gin Met Asp Phe Leu
1558 1285 1290 1295
1559 Gln Asp Gly Arg Ala Ser Leu Arg Ile Pro Val Val Leu Pro Glu Asp
1560 1300 1305 1310
1561 Glu Gly Ile Tyr Thr Ala Phe Ala Ser Asn Ile Lys Gly Asn Ala Ile
1562 1315 1320 1325
1563 Cys Ser Gly Lys Leu Tyr Val Glu Pro Ala Ala Pro Leu Gly Ala Pro
1564 1330 1335 1340
1565 Thr Tyr Ile Pro Thr Leu Glu Pro Val Ser Arg Ile Arg Ser Leu Ser
1566 1345 1350 1355 1360
1567 Pro Arg Ser Val Ser Arg Ser Pro Ile Arg Met Ser Pro Ala Arg Met
1568 1365 1370 1375
1569 Ser Pro Ala Arg Met Ser Pro Ala Arg Met Ser Pro Ala Arg Met Ser
1570 1380 1385 1390
1571 Pro Gly Arg Arg Leu Glu Thr Asp Glu Ser Gln Leu Glu Arg Leu

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

1572	1395	1400	1405
1573	Tyr Lys Pro Val Phe Val Leu Lys Pro Val Ser Phe Lys Cys Leu Glu		
1574	1410	1415	1420
1575	Gly Gln Thr Ala Arg Phe Asp Leu Lys Val Val Gly Arg Pro Met Pro		
1576	1425	1430	1435
1577	Glu Thr Phe Trp Phe His Asp Gly Glu Gln Ile Val Asn Asp Tyr Thr		
1578	1445	1450	1455
1579	His Lys Val Val Ile Lys Glu Asp Gly Thr Gln Ser Leu Ile Ile Val		
1580	1460	1465	1470
1581	Pro Ala Thr Pro Ser Asp Ser Gly Glu Trp Thr Val Val Ala Gln Asn		
1582	1475	1480	1485
1583	Arg Ala Gly Arg Ser Ser Ile Ser Val Ile Leu Thr Val Glu Ala Val		
1584	1490	1495	1500
1585	Glu His Gln Val Lys Pro Met Phe Val Glu Lys Leu Lys Asn Val Asn		
1586	1505	1510	1515
1587	Ile Lys Glu Gly Ser Arg Leu Glu Met Lys Val Arg Ala Thr Gly Asn		
1588	1525	1530	1535
1589	Pro Asn Pro Asp Ile Val Trp Leu Lys Asn Ser Asp Ile Ile Val Pro		
1590	1540	1545	1550
1591	His Lys Tyr Pro Lys Ile Arg Ile Glu Gly Thr Lys Gly Glu Ala Ala		
1592	1555	1560	1565
1593	Leu Lys Ile Asp Ser Thr Val Ser Gln Asp Ser Ala Trp Tyr Thr Ala		
1594	1570	1575	1580
1595	Thr Ala Ile Asn Lys Ala Gly Arg Asp Thr Thr Arg Cys Lys Val Asn		
1596	1585	1590	1595
1597	Val Glu Val Glu Phe Ala Glu Pro Glu Pro Glu Arg Lys Leu Ile Ile		
1598	1605	1610	1615
1599	Pro Arg Gly Thr Tyr Arg Ala Lys Glu Ile Ala Ala Pro Glu Leu Glu		
1600	1620	1625	1630
1601	Pro Leu His Leu Arg Tyr Gly Gln Glu Gln Trp Glu Glu Gly Asp Leu		
1602	1635	1640	1645
1603	Tyr Asp Lys Gln Lys Gln Gln Pro Phe Phe Lys Lys Lys Leu Thr		
1604	1650	1655	1660
1605	Ser Leu Arg Leu Lys Arg Phe Gly Pro Ala His Phe Glu Cys Arg Leu		
1606	1665	1670	1675
1607	Thr Pro Ile Ser Asp Pro Thr Met Val Val Glu Trp Leu His Asp Gly		
1608	1685	1690	1695
1609	Lys Pro Leu Glu Ala Ala Asn Arg Leu Arg Met Ile Asn Glu Phe Gly		
1610	1700	1705	1710
1611	Tyr Cys Ser Leu Asp Tyr Gly Val Ala Tyr Ser Arg Asp Ser Gly Ile		
1612	1715	1720	1725
1613	Ile Thr Cys Arg Ala Thr Asn Lys Tyr Gly Thr Asp His Thr Ser Ala		
1614	1730	1735	1740
1615	Thr Leu Ile Val Lys Asp Glu Lys Ser Leu Val Glu Glu Ser Gln Leu		
1616	1745	1750	1755
1617	Pro Glu Gly Arg Lys Gly Leu Gln Arg Ile Glu Glu Leu Glu Arg Met		
1618	1765	1770	1775
1619	Ala His Glu Gly Ala Leu Thr Gly Val Thr Thr Asp Gln Lys Glu Lys		
1620	1780	1785	1790

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\1759508.raw

1621 Gln Lys Pro Asp Ile Val Leu Tyr Pro Glu Pro Val Arg Val Leu Glu
 1622 1795 1800 1805
 1623 Gly Glu Thr Ala Arg Phe Arg Cys Arg Val Thr Gly Tyr Pro Gln Pro
 1624 1810 1815 1820
 1625 Lys Val Asn Trp Tyr Leu Asn Gly Gln Leu Ile Arg Lys Ser Lys Arg
 1626 1825 1830 1835 1840
 1627 Phe Arg Val Arg Tyr Asp Gly Ile His Tyr Leu Asp Ile Val Asp Cys
 1628 1845 1850 1855
 1629 Lys Ser Tyr Asp Thr Gly Glu Val Lys Val Thr Ala Glu Asn Pro Glu
 1630 1860 1865 1870
 1631 Gly Val Ile Glu His Lys Val Lys Leu Glu Ile Gln Gln Arg Glu Asp
 1632 1875 1880 1885
 1633 Phe Arg Ser Val Leu Arg Arg Ala Pro Glu Pro Arg Pro Glu Phe His
 1634 1890 1895 1900
 1635 Val His Glu Pro Gly Lys Leu Gln Phe Glu Val Gln Lys Val Asp Arg
 1636 1905 1910 1915 1920
 1637 Pro Val Asp Thr Thr Glu Thr Lys Glu Val Val Lys Leu Lys Arg Ala
 1638 1925 1930 1935
 1639 Glu Arg Ile Thr His Glu Lys Val Pro Glu Glu Ser Glu Glu Leu Arg
 1640 1940 1945 1950
 1641 Ser Lys Phe Lys Arg Arg Thr Glu Glu Gly Tyr Tyr Glu Ala Ile Thr
 1642 1955 1960 1965
 1643 Ala Val Glu Leu Lys Ser Arg Lys Lys Asp Glu Ser Tyr Glu Glu Leu
 1644 1970 1975 1980
 1645 Leu Arg Lys Thr Lys Asp Glu Leu Leu His Trp Thr Lys Glu Leu Thr
 1646 1985 1990 1995 2000
 1647 Glu Glu Glu Lys Ala Leu Ala Glu Glu Gly Lys Ile Thr Ile Pro
 1648 2005 2010 2015
 1649 Thr Phe Lys Pro Asp Lys Ile Glu Leu Ser Pro Ser Met Glu Ala Pro
 1650 2020 2025 2030
 1651 Lys Ile Phe Glu Arg Ile Gln Ser Gln Thr Val Gly Gln Gly Ser Asp
 1652 2035 2040 2045
 1653 Ala His Phe Arg Val Arg Val Val Gly Lys Pro Asp Pro Glu Cys Glu
 1654 2050 2055 2060
 1655 Trp Tyr Lys Asn Gly Val Lys Ile Glu Arg Ser Asp Arg Ile Tyr Trp
 1656 2065 2070 2075 2080
 1657 Tyr Trp Pro Glu Asp Asn Val Cys Glu Leu Val Ile Arg Asp Val Thr
 1658 2085 2090 2095
 1659 Ala Glu Asp Ser Ala Ser Ile Met Val Lys Ala Ile Asn Ile Ala Gly
 1660 2100 2105 2110
 1661 Glu Thr Ser Ser His Ala Phe Leu Leu Val Gln Ala Lys Gln Leu Ile
 1662 2115 2120 2125
 1663 Thr Phe Thr Gln Glu Leu Gln Asp Val Val Ala Lys Glu Lys Asp Thr
 1664 2130 2135 2140
 1665 Met Ala Thr Phe Glu Cys Glu Thr Ser Glu Pro Phe Val Lys Val Lys
 1666 2145 2150 2155 2160
 1667 Trp Tyr Lys Asp Gly Met Glu Val His Glu Gly Asp Lys Tyr Arg Met
 1668 2165 2170 2175
 1669 His Ser Asp Arg Lys Val His Phe Leu Ser Ile Leu Thr Ile Asp Thr

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

1670	2180	2185	2190
1671	Ser Asp Ala Glu Asp Tyr Ser Cys Val Leu Val Glu Asp Glu Asn Val		
1672	2195	2200	2205
1673	Lys Thr Thr Ala Lys Leu Ile Val Glu Gly Ala Val Val Glu Phe Val		
1674	2210	2215	2220
1675	Lys Glu Leu Gln Asp Ile Glu Val Pro Glu Ser Tyr Ser Gly Glu Leu		
1676	2225	2230	2235
1677	Glu Cys Ile Val Ser Pro Glu Asn Ile Glu Gly Lys Trp Tyr His Asn		
1678	2245	2250	2255
1679	Asp Val Glu Leu Lys Ser Asn Gly Lys Tyr Thr Ile Thr Ser Arg Arg		
1680	2260	2265	2270
1681	Gly Arg Gln Asn Leu Thr Val Lys Asp Val Thr Lys Glu Asp Gln Gly		
1682	2275	2280	2285
1683	Glu Tyr Ser Phe Val Ile Asp Gly Lys Lys Thr Thr Cys Lys Leu Lys		
1684	2290	2295	2300
1685	Met Lys Pro Arg Pro Ile Ala Ile Leu Gln Gly Ile Ser Asp Gln Lys		
1686	2305	2310	2315
1687	Val Cys Glu Gly Asp Ile Val Gln Leu Glu Val Lys Val Ser Leu Glu		
1688	2325	2330	2335
1689	Ser Val Glu Gly Val Trp Met Lys Asp Gly Gln Glu Val Gln Pro Ser		
1690	2340	2345	2350
1691	Asp Arg Val His Ile Val Ile Asp Lys Gln Ser His Met Leu Leu Ile		
1692	2355	2360	2365
1693	Glu Asp Met Thr Lys Glu Asp Ala Gly Asn Tyr Ser Phe Thr Ile Pro		
1694	2370	2375	2380
1695	Ala Leu Gly Leu Ser Thr Ser Gly Arg Val Ser Val Tyr Ser Val Asp		
1696	2385	2390	2395
1697	Val Ile Thr Pro Leu Lys Asp Val Asn Val Ile Glu Gly Thr Lys Ala		
1698	2405	2410	2415
1699	Val Leu Glu Cys Lys Val Ser Val Pro Asp Val Thr Ser Val Lys Trp		
1700	2420	2425	2430
1701	Tyr Leu Asn Asp Glu Gln Ile Lys Pro Asp Asp Arg Val Gln Ala Ile		
1702	2435	2440	2445
1703	Val Lys Gly Thr Lys Gln Arg Leu Val Ile Asn Arg Thr His Ala Ser		
1704	2450	2455	2460
1705	Asp Glu Gly Pro Tyr Lys Leu Ile Val Gly Arg Val Glu Thr Asn Cys		
1706	2465	2470	2475
1707	Asn Leu Ser Val Glu Lys Ile Lys Ile Arg Gly Leu Arg Asp Leu		
1708	2485	2490	2495
1709	Thr Cys Thr Glu Thr Gln Asn Val Val Phe Glu Val Glu Leu Ser His		
1710	2500	2505	2510
1711	Ser Gly Ile Asp Val Leu Trp Asn Phe Lys Asp Lys Glu Ile Lys Pro		
1712	2515	2520	2525
1713	Ser Ser Lys Tyr Lys Ile Glu Ala His Gly Lys Ile Tyr Lys Leu Thr		
1714	2530	2535	2540
1715	Val Leu Asn Met Met Lys Asp Asp Glu Gly Lys Tyr Thr Phe Tyr Ala		
1716	2545	2550	2555
1717	Gly Glu Asn Met Thr Ser Gly Lys Leu Thr Val Ala Gly Gly Ala Ile		
1718	2565	2570	2575

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

1719 Ser Lys Pro Leu Thr Asp Gln Thr Val Ala Glu Ser Gln Glu Ala Val
 1720 2580 2585 2590
 1721 Phe Glu Cys Glu Val Ala Asn Pro Asp Ser Lys Gly Glu Trp Leu Arg
 1722 2595 2600 2605
 1723 Asp Gly Lys His Leu Pro Leu Thr Asn Asn Ile Arg Ser Glu Ser Asp
 1724 2610 2615 2620
 1725 Gly His Lys Arg Arg Leu Ile Ile Ala Ala Thr Lys Leu Asp Asp Ile
 1726 2625 2630 2635 2640
 1727 Gly Glu Tyr Thr Tyr Lys Val Ala Thr Ser Lys Thr Ser Ala Lys Leu
 1728 2645 2650 2655
 1729 Lys Val Glu Ala Val Lys Ile Lys Lys Thr Leu Lys Asn Leu Thr Val
 1730 2660 2665 2670
 1731 Thr Glu Thr Glu Asp Ala Val Phe Thr Val Glu Leu Thr His Pro Asn
 1732 2675 2680 2685
 1733 Val Lys Gly Val Gln Trp Ile Lys Asn Gly Val Val Leu Glu Ser Asn
 1734 2690 2695 2700
 1735 Glu Lys Tyr Ala Ile Ser Val Lys Gly Thr Ile Tyr Ser Leu Arg Ile
 1736 2705 2710 2715 2720
 1737 Lys Asn Cys Ala Ile Val Asp Glu Ser Val Tyr Gly Phe Arg Leu Gly
 1738 2725 2730 2735
 1739 Arg Leu Gly Ala Ser Ala Arg Leu His Val Glu Thr Val Lys Ile Ile
 1740 2740 2745 2750
 1741 Lys Lys Pro Lys Asp Val Thr Ala Leu Glu Asn Ala Thr Val Ala Phe
 1742 2755 2760 2765
 1743 Glu Val Ser Val Ser His Asp Thr Val Pro Val Lys Trp Phe His Lys
 1744 2770 2775 2780
 1745 Ser Val Glu Ile Lys Pro Ser Asp Lys His Arg Leu Val Ser Glu Arg
 1746 2785 2790 2795 2800
 1747 Lys Val His Lys Leu Met Leu Gln Asn Ile Ser Pro Ser Asp Ala Gly
 1748 2805 2810 2815
 1749 Glu Tyr Thr Ala Val Val Gly Gln Leu Glu Cys Lys Ala Lys Leu Phe
 1750 2820 2825 2830
 1751 Val Glu Thr Leu His Ile Thr Lys Thr Met Lys Asn Ile Glu Val Pro
 1752 2835 2840 2845
 1753 Glu Thr Lys Thr Ala Ser Phe Glu Cys Glu Val Ser His Phe Asn Val
 1754 2850 2855 2860
 1755 Pro Ser Met Trp Leu Lys Asn Gly Val Glu Ile Glu Met Ser Glu Lys
 1756 2865 2870 2875 2880
 1757 Phe Lys Ile Val Val Gln Gly Lys Leu His Gln Leu Ile Ile Met Asn
 1758 2885 2890 2895
 1759 Thr Ser Thr Glu Asp Ser Ala Glu Tyr Thr Phe Val Cys Gly Asn Asp
 1760 2900 2905 2910
 1761 Glu Val Ser Ala Thr Leu Thr Val Thr Pro Ile Met Ile Thr Ser Met
 1762 2915 2920 2925
 1763 Leu Lys Asp Ile Asn Ala Glu Glu Lys Asp Thr Ile Thr Phe Glu Val
 1764 2930 2935 2940
 1765 Thr Val Asn Tyr Glu Gly Ile Ser Tyr Lys Trp Leu Lys Asn Gly Val
 1766 2945 2950 2955 2960
 1767 Glu Ile Lys Ser Thr Asp Lys Cys Gln Met Arg Thr Lys Leu Thr

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

1768	2965	2970	2975
1769 His Ser Leu Asn Ile Arg Asn Val His Phe Gly Asp Ala Ala Asp Tyr			
1770	2980	2985	2990
1771 Thr Phe Val Ala Gly Lys Ala Thr Ser Thr Ala Thr Leu Tyr Val Glu			
1772	2995	3000	3005
1773 Ala Arg His Ile Glu Phe Arg Lys His Ile Lys Asp Ile Lys Val Leu			
1774	3010	3015	3020
1775 Glu Lys Lys Arg Ala Met Phe Glu Cys Glu Val Ser Glu Pro Asp Ile			
1776 3025	3030	3035	3040
1777 Thr Val Gln Trp Met Lys Asp Asp Gln Glu Leu Gln Ile Thr Asp Arg			
1778	3045	3050	3055
1779 Ile Lys Ile Gln Lys Glu Lys Tyr Val His Arg Leu Ile Pro Ser			
1780	3060	3065	3070
1781 Thr Arg Met Ser Asp Ala Gly Lys Tyr Thr Val Val Ala Gly Gly Asn			
1782	3075	3080	3085
1783 Val Ser Thr Ala Lys Leu Phe Val Gln Gly Arg Asp Val Arg Ile Arg			
1784	3090	3095	3100
1785 Ser Ile Lys Lys Glu Val Gln Val Ile Glu Lys Gln Arg Ala Val Val			
1786 3105	3110	3115	3120
1787 Glu Phe Glu Val Asn Glu Asp Asp Val Asp Ala His Trp Tyr Lys Asp			
1788	3125	3130	3135
1789 Gly Ile Glu Ile Asn Phe Gln Val Gln Glu Arg His Lys Tyr Val Val			
1790	3140	3145	3150
1791 Gln Arg Arg Ile His Arg Met Phe Ile Ser Glu Thr Arg Gln Ser Asp			
1792	3155	3160	3165
1793 Ala Gly Glu Tyr Thr Phe Val Ala Gly Arg Asn Arg Ser Ser Val Thr			
1794	3170	3175	3180
1795 Leu Tyr Val Asn Ala Pro Glu Pro Pro Gln Val Leu Gln Glu Leu Gln			
1796 3185	3190	3195	3200
1797 Pro Val Thr Val Gln Ser Gly Lys Pro Ala Arg Phe Cys Ala Met Ile			
1798	3205	3210	3215
1799 Ser Gly Arg Pro Gln Pro Lys Ile Ser Trp Tyr Lys Glu Gln Leu			
1800	3220	3225	3230
1801 Leu Ser Thr Gly Phe Lys Cys Lys Phe Leu His Asp Gly Gln Glu Tyr			
1802	3235	3240	3245
1803 Thr Leu Leu Ile Glu Ala Phe Pro Glu Asp Ala Ala Val Tyr Thr			
1804	3250	3255	3260
1805 Cys Glu Ala Lys Asn Asp Tyr Gly Val Ala Thr Thr Ser Ala Ser Leu			
1806 3265	3270	3275	3280
1807 Ser Val Glu Val Pro Glu Val Val Ser Pro Asp Gln Glu Met Pro Val			
1808	3285	3290	3295
1809 Tyr Pro Pro Ala Ile Ile Thr Pro Leu Gln Asp Thr Val Thr Ser Glu			
1810	3300	3305	3310
1811 Gly Gln Pro Ala Arg Phe Gln Cys Arg Val Ser Gly Thr Asp Leu Lys			
1812	3315	3320	3325
1813 Val Ser Trp Tyr Ser Lys Asp Lys Lys Ile Lys Pro Ser Arg Phe Phe			
1814	3330	3335	3340
1815 Arg Met Thr Gln Phe Glu Asp Thr Tyr Gln Leu Glu Ile Ala Glu Ala			
1816 3345	3350	3355	3360

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

1817 Tyr Pro Glu Asp Glu Gly Thr Tyr Thr Phe Val Ala Asn Asn Ala Val
 1818 3365 3370 3375
 1819 Gly Gln Val Ser Ser Thr Ala Asn Leu Ser Leu Glu Ala Pro Glu Ser
 1820 3380 3385 3390
 1821 Ile Leu His Glu Arg Ile Glu Gln Glu Ile Glu Met Glu Met Lys Glu
 1822 3395 3400 3405
 1823 Phe Ser Ser Ser Phe Leu Ser Ala Glu Glu Glu Gly Leu His Ser Ala
 1824 3410 3415 3420
 1825 Glu Leu Gln Leu Ser Lys Ile Asn Glu Thr Leu Glu Leu Leu Ser Glu
 1826 3425 3430 3435 3440
 1827 Ser Pro Val Tyr Pro Thr Lys Phe Asp Ser Glu Lys Glu Gly Thr Gly
 1828 3445 3450 3455
 1829 Pro Ile Phe Ile Lys Glu Val Ser Asn Ala Asp Ile Ser Met Gly Asp
 1830 3460 3465 3470
 1831 Val Ala Thr Leu Ser Val Thr Val Ile Gly Ile Pro Lys Pro Lys Ile
 1832 3475 3480 3485
 1833 Gln Trp Phe Phe Asn Gly Val Leu Leu Thr Pro Ser Ala Asp Tyr Lys
 1834 3490 3495 3500
 1835 Phe Val Phe Asp Gly Asp Asp His Ser Leu Ile Ile Leu Phe Thr Lys
 1836 3505 3510 3515 3520
 1837 Leu Glu Asp Glu Gly Glu Tyr Thr Cys Met Ala Ser Asn Asp Tyr Gly
 1838 3525 3530 3535
 1839 Lys Thr Ile Cys Ser Ala Tyr Leu Lys Ile Asn Ser Lys Gly Glu Gly
 1840 3540 3545 3550
 1841 His Lys Asp Thr Glu Thr Glu Ser Ala Val Ala Lys Ser Leu Glu Lys
 1842 3555 3560 3565
 1843 Leu Gly Gly Pro Cys Pro Pro His Phe Leu Lys Glu Leu Lys Pro Ile
 1844 3570 3575 3580
 1845 Arg Cys Ala Gln Gly Leu Pro Ala Ile Phe Glu Tyr Thr Val Val Gly
 1846 3585 3590 3595 3600
 1847 Glu Pro Ala Pro Thr Val Thr Trp Phe Lys Glu Asn Lys Gln Leu Cys
 1848 3605 3610 3615
 1849 Thr Ser Val Tyr Tyr Thr Ile Ile His Asn Pro Asn Gly Ser Gly Thr
 1850 3620 3625 3630
 1851 Phe Ile Val Asn Asp Pro Gln Arg Glu Asp Ser Gly Tyr Ile Cys
 1852 3635 3640 3645
 1853 Lys Ala Glu Asn Met Leu Gly Glu Ser Thr Cys Ala Ala Glu Leu Leu
 1854 3650 3655 3660
 1855 Val Leu Leu Glu Asp Thr Asp Met Thr Asp Pro Cys Lys Ala Lys
 1856 3665 3670 3675 3680
 1857 Ser Thr Pro Glu Ala Pro Glu Asp Phe Pro Gln Thr Pro Leu Lys Gly
 1858 3685 3690 3695
 1859 Pro Ala Val Glu Ala Leu Asp Ser Glu Gln Glu Ile Ala Thr Phe Val
 1860 3700 3705 3710
 1861 Lys Asp Thr Ile Leu Lys Ala Ala Leu Ile Thr Glu Glu Asn Gln Gln
 1862 3715 3720 3725
 1863 Leu Ser Tyr Glu His Ile Ala Lys Ala Asn Glu Leu Ser Ser Gln Leu
 1864 3730 3735 3740
 1865 Pro Leu Gly Ala Gln Glu Leu Gln Ser Ile Leu Glu Gln Asp Lys Leu

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

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Output Set: N:\CRF3\01292001\I759508.raw

1866	3745	3750	3755	3760
1867	Thr Pro Glu Ser Thr Arg Glu Phe Leu Cys Ile Asn Gly Ser Ile His			
1868	3765	3770	3775	
1869	Phe Gln Pro Leu Lys Glu Pro Ser Pro Asn Leu Gln Leu Gln Ile Val			
1870	3780	3785	3790	
1871	Gln Ser Gln Lys Thr Phe Ser Lys Glu Gly Ile Leu Met Pro Glu Glu			
1872	3795	3800	3805	
1873	Pro Glu Thr Gln Ala Val Leu Ser Asp Thr Glu Lys Ile Phe Pro Ser			
1874	3810	3815	3820	
1875	Ala Met Ser Ile Glu Gln Ile Asn Ser Leu Thr Val Glu Pro Leu Lys			
1876	3825	3830	3835	3840
1877	Thr Leu Leu Ala Glu Pro Glu Gly Asn Tyr Pro Gln Ser Ser Ile Glu			
1878	3845	3850	3855	
1879	Pro Pro Met His Ser Tyr Leu Thr Ser Val Ala Glu Glu Val Leu Ser			
1880	3860	3865	3870	
1881	Leu Lys Glu Lys Thr Val Ser Asp Thr Asn Arg Glu Gln Arg Val Thr			
1882	3875	3880	3885	
1883	Leu Gln Lys Gln Glu Ala Gln Ser Ala Leu Ile Leu Ser Gln Ser Leu			
1884	3890	3895	3900	
1885	Ala Glu Gly His Val Glu Ser Leu Gln Ser Pro Asp Val Met Ile Ser			
1886	3905	3910	3915	3920
1887	Gln Val Asn Tyr Glu Pro Leu Val Pro Ser Glu His Ser Cys Thr Glu			
1888	3925	3930	3935	
1889	Gly Gly Lys Ile Leu Ile Glu Ser Ala Asn Pro Leu Glu Asn Ala Gly			
1890	3940	3945	3950	
1891	Gln Asp Ser Ala Val Arg Ile Glu Glu Gly Lys Ser Leu Arg Phe Pro			
1892	3955	3960	3965	
1893	Leu Ala Leu Glu Glu Lys Gln Val Leu Leu Lys Glu Glu His Ser Asp			
1894	3970	3975	3980	
1895	Asn Val Val Met Pro Pro Asp Gln Ile Ile Glu Ser Lys Arg Glu Pro			
1896	3985	3990	3995	4000
1897	Val Ala Ile Lys Lys Val Gln Glu Val Gln Gly Arg Asp Leu Leu Ser			
1898	4005	4010	4015	
1899	Lys Glu Ser Leu Leu Ser Gly Ile Pro Glu Glu Gln Arg Leu Asn Leu			
1900	4020	4025	4030	
1901	Lys Ile Gln Ile Cys Arg Ala Leu Gln Ala Ala Val Ala Ser Glu Gln			
1902	4035	4040	4045	
1903	Pro Gly Leu Phe Ser Glu Trp Leu Arg Asn Ile Glu Lys Val Glu Val			
1904	4050	4055	4060	
1905	Glu Ala Val Asn Ile Thr Gln Glu Pro Arg His Ile Met Cys Met Tyr			
1906	4065	4070	4075	4080
1907	Leu Val Thr Ser Ala Lys Ser Val Thr Glu Glu Val Thr Ile Ile Ile			
1908	4085	4090	4095	
1909	Glu Asp Val Asp Pro Gln Met Ala Asn Leu Lys Met Glu Leu Arg Asp			
1910	4100	4105	4110	
1911	Ala Leu Cys Ala Ile Ile Tyr Glu Glu Ile Asp Ile Leu Thr Ala Glu			
1912	4115	4120	4125	
1913	Gly Pro Arg Ile Gln Gln Gly Ala Lys Thr Ser Leu Gln Glu Glu Met			
1914	4130	4135	4140	

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

1915 Asp Ser Phe Ser Gly Ser Gln Lys Val Glu Pro Ile Thr Glu Pro Glu
1916 4145 4150 4155 4160
1917 Val Glu Ser Lys Tyr Leu Ile Ser Thr Glu Glu Val Ser Tyr Phe Asn
1918 4165 4170 4175
1919 Val Gln Ser Arg Val Lys Tyr Leu Asp Ala Thr Pro Val Thr Lys Gly
1920 4180 4185 4190
1921 Val Ala Ser Ala Val Val Ser Asp Glu Lys Gln Asp Glu Ser Leu Lys
1922 4195 4200 4205
1923 Pro Ser Glu Glu Lys Glu Glu Ser Ser Ser Glu Ser Gly Thr Glu Glu
1924 4210 4215 4220
1925 Val Ala Thr Val Lys Ile Gln Glu Ala Glu Gly Gly Leu Ile Lys Glu
1926 4225 4230 4235 4240
1927 Asp Gly Pro Met Ile His Thr Pro Leu Val Asp Thr Val Ser Glu Glu
1928 4245 4250 4255
1929 Gly Asp Ile Val His Leu Thr Thr Ser Ile Thr Asn Ala Lys Glu Val
1930 4260 4265 4270
1931 Asn Trp Tyr Phe Glu Asn Lys Leu Val Pro Ser Asp Glu Lys Phe Lys
1932 4275 4280 4285
1933 Cys Leu Gln Asp Gln Asn Thr Tyr Thr Leu Val Ile Asp Lys Val Asn
1934 4290 4295 4300
1935 Thr Glu Asp His Gln Gly Glu Tyr Val Cys Glu Ala Leu Asn Asp Ser
1936 4305 4310 4315 4320
1937 Gly Lys Thr Ala Thr Ser Ala Lys Leu Thr Val Val Lys Arg Ala Ala
1938 4325 4330 4335
1939 Pro Val Ile Lys Arg Lys Ile Glu Pro Leu Glu Val Ala Leu Gly His
1940 4340 4345 4350
1941 Leu Ala Lys Phe Thr Cys Glu Ile Gin Ser Ala Pro Asn Val Arg Phe
1942 4355 4360 4365
1943 Gln Trp Phe Lys Ala Gly Arg Glu Ile Tyr Glu Ser Asp Lys Cys Ser
1944 4370 4375 4380
1945 Ile Arg Ser Ser Lys Tyr Ile Ser Ser Leu Glu Ile Leu Arg Thr Gln
1946 4385 4390 4395 4400
1947 Val Val Asp Cys Gly Glu Tyr Thr Cys Lys Ala Ser Asn Glu Tyr Gly
1948 4405 4410 4415
1949 Ser Val Ser Cys Thr Ala Thr Leu Thr Val Thr Val Pro Gly Gly Glu
1950 4420 4425 4430
1951 Lys Lys Val Arg Lys Leu Leu Pro Glu Arg Lys Pro Glu Pro Lys Glu
1952 4435 4440 4445
1953 Glu Val Val Leu Lys Ser Val Leu Arg Lys Arg Pro Glu Glu Glu Glu
1954 4450 4455 4460
1955 Pro Lys Val Glu Pro Lys Lys Leu Glu Lys Val Lys Lys Pro Ala Val
1956 4465 4470 4475 4480
1957 Pro Glu Pro Pro Pro Lys Pro Val Glu Glu Val Glu Val Pro Thr
1958 4485 4490 4495
1959 Val Thr Lys Arg Glu Arg Lys Ile Pro Glu Pro Thr Lys Val Pro Glu
1960 4500 4505 4510
1961 Ile Lys Pro Ala Ile Ile Pro Leu Pro Ala Pro Glu Pro Lys Pro Lys Pro
1962 4515 4520 4525
1963 Glu Ala Glu Val Lys Thr Ile Lys Pro Pro Pro Val Glu Pro Glu Pro

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508
DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

1964	4530	4535	4540
1965	Thr Pro Ile Ala Ala Pro Val Thr Val Pro Val Val Gly Lys Lys Ala		
1966	4545	4550	4555
1967	Glu Ala Lys Ala Pro Lys Glu Glu Ala Ala Lys Pro Lys Gly Pro Ile		4560
1968	4565	4570	4575
1969	Lys Gly Val Pro Lys Lys Thr Pro Ser Pro Ile Gln Ala Glu Arg Arg		
1970	4580	4585	4590
1971	Lys Leu Arg Pro Gly Ser Gly Glu Lys Pro Pro Asp Glu Ala Pro		
1972	4595	4600	4605
1973	Phe Thr Tyr Gln Leu Lys Ala Val Pro Leu Lys Phe Val Lys Glu Ile		
1974	4610	4615	4620
1975	Lys Asp Ile Ile Leu Thr Glu Ser Glu Phe Val Gly Ser Ser Ala Ile		
1976	4625	4630	4635
1977	Phe Glu Cys Leu Val Ser Pro Ser Thr Ala Ile Thr Thr Trp Met Lys		4640
1978	4645	4650	4655
1979	Asp Gly Ser Asn Ile Arg Glu Ser Pro Lys His Arg Phe Ile Ala Asp		
1980	4660	4665	4670
1981	Gly Lys Asp Arg Lys Leu His Ile Ile Asp Val Gln Leu Ser Asp Ala		
1982	4675	4680	4685
1983	Gly Glu Tyr Thr Cys Val Leu Arg Leu Gly Asn Lys Glu Lys Thr Ser		
1984	4690	4695	4700
1985	Thr Ala Lys Leu Val Val Glu Glu Leu Pro Val Arg Phe Val Lys Thr		
1986	4705	4710	4715
1987	Leu Glu Glu Glu Val Thr Val Val Lys Gly Gin Pro Leu Tyr Leu Ser		
1988	4725	4730	4735
1989	Cys Glu Leu Asn Lys Glu Arg Asp Val Val Trp Arg Lys Asp Gly Lys		
1990	4740	4745	4750
1991	Ile Val Val Glu Lys Pro Gly Arg Ile Val Pro Gly Val Ile Gly Leu		
1992	4755	4760	4765
1993	Met Arg Ala Leu Thr Ile Asn Asp Ala Asp Asp Thr Asp Ala Gly Thr		
1994	4770	4775	4780
1995	Tyr Thr Val Thr Val Glu Asn Ala Asn Leu Glu Cys Ser Ser Cys		
1996	4785	4790	4795
1997	Val Lys Val Val Glu Val Ile Arg Asp Trp Leu Val Lys Pro Ile Arg		4800
1998	4805	4810	4815
1999	Asp Gin His Val Lys Pro Lys Gly Thr Ala Ile Phe Ala Cys Asp Ile		
2000	4820	4825	4830
2001	Ala Lys Asp Thr Pro Asn Ile Lys Trp Phe Lys Gly Tyr Asp Glu Ile		
2002	4835	4840	4845
2003	Pro Ala Glu Pro Asn Asp Lys Thr Glu Ile Leu Arg Asp Gly Asn His		
2004	4850	4855	4860
2005	Leu Tyr Leu Lys Ile Lys Asn Ala Met Pro Glu Asp Ile Ala Glu Tyr		
2006	4865	4870	4875
2007	Ala Val Glu Ile Glu Gly Lys Arg Tyr Pro Ala Lys Leu Thr Leu Gly		4880
2008	4885	4890	4895
2009	Glu Arg Glu Val Glu Leu Leu Lys Pro Ile Glu Asp Val Thr Ile Tyr		
2010	4900	4905	4910
2011	Glu Lys Glu Ser Ala Ser Phe Asp Ala Glu Ile Ser Glu Ala Asp Ile		
2012	4915	4920	4925

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

2013 Pro Gly Gln Trp Lys Leu Lys Gly Glu Leu Leu Arg Pro Ser Pro Thr
 2014 4930 4935 4940
 2015 Cys Glu Ile Lys Ala Glu Gly Gly Lys Arg Phe Leu Thr Leu His Lys
 2016 4945 4950 4955 4960
 2017 Val Lys Leu Asp Gln Ala Gly Glu Val Leu Tyr Gln Ala Leu Asn Ala
 2018 4965 4970 4975
 2019 Ile Thr Thr Ala Ile Leu Thr Val Lys Glu Ile Glu Leu Asp Phe Ala
 2020 4980 4985 4990
 2021 Val Pro Leu Lys Asp Val Thr Val Pro Glu Arg Arg Gln Ala Arg Phe
 2022 4995 5000 5005
 2023 Glu Cys Val Leu Thr Arg Gln Ala Asn Val Ile Trp Ser Lys Gly Pro
 2024 5010 5015 5020
 2025 Asp Ile Ile Lys Ser Ser Asp Lys Phe Asp Ile Ala Asp Gly Lys
 2026 5025 5030 5035 5040
 2027 Lys His Ile Leu Val Ile Asn Asp Ser Gln Phe Asp Asp Glu Gly Val
 2028 5045 5050 5055
 2029 Tyr Thr Ala Glu Val Glu Gly Lys Lys Thr Ser Ala Arg Leu Phe Val
 2030 5060 5065 5070
 2031 Thr Gly Ile Arg Leu Lys Phe Met Ser Pro Leu Glu Asp Gln Thr Val
 2032 5075 5080 5085
 2033 Lys Glu Gly Glu Thr Ala Thr Phe Val Cys Glu Leu Ser His Glu Lys
 2034 5090 5095 5100
 2035 Met His Val Val Trp Phe Lys Asn Asp Ala Lys Leu His Thr Ser Arg
 2036 5105 5110 5115 5120
 2037 Thr Val Leu Ile Ser Ser Glu Gly Lys Thr His Lys Leu Glu Met Lys
 2038 5125 5130 5135
 2039 Glu Val Thr Leu Asp Asp Ile Ser Gln Ile Lys Ala Gln Val Lys Glu
 2040 5140 5145 5150
 2041 Leu Ser Ser Thr Ala Gln Leu Lys Val Leu Glu Ala Asp Pro Tyr Phe
 2042 5155 5160 5165
 2043 Thr Val Lys Leu His Asp Lys Thr Ala Val Glu Lys Asp Glu Ile Thr
 2044 5170 5175 5180
 2045 Leu Lys Cys Glu Val Ser Lys Asp Val Pro Val Lys Trp Phe Lys Asp
 2046 5185 5190 5195 5200
 2047 Gly Glu Glu Ile Val Pro Ser Pro Lys Tyr Ser Ile Lys Ala Asp Gly
 2048 5205 5210 5215
 2049 Leu Arg Arg Ile Leu Lys Ile Lys Lys Ala Asp Leu Lys Asp Lys Gly
 2050 5220 5225 5230
 2051 Glu Tyr Val Cys Asp Cys Gly Thr Asp Lys Thr Lys Ala Asn Val Thr
 2052 5235 5240 5245
 2053 Val Glu Ala Arg Leu Ile Glu Val Glu Lys Pro Leu Tyr Gly Val Glu
 2054 5250 5255 5260
 2055 Val Phe Val Gly Glu Thr Ala His Phe Glu Ile Glu Leu Ser Glu Pro
 2056 5265 5270 5275 5280
 2057 Asp Val His Gly Gln Trp Lys Leu Lys Gly Gln Pro Leu Thr Ala Ser
 2058 5285 5290 5295
 2059 Pro Asp Cys Glu Ile Ile Glu Asp Gly Lys Lys His Ile Leu Ile Leu
 2060 5300 5305 5310
 2061 His Asn Cys Gln Leu Gly Met Thr Gly Glu Val Ser Phe Gln Ala Ala

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

2062	5315	5320	5325
2063	Asn Ala Lys Ser Ala Ala Asn Leu Lys Val Lys Glu Leu Pro Leu Ile		
2064	5330	5335	5340
2065	Phe Ile Thr Pro Leu Ser Asp Val Lys Val Phe Glu Lys Asp Glu Ala		
2066	5345	5350	5355
2067	Lys Phe Glu Cys Glu Val Ser Arg Glu Pro Lys Thr Phe Arg Trp Leu		5360
2068	5365	5370	5375
2069	Lys Gly Thr Glu Glu Ile Thr Gly Asp Asp Arg Phe Glu Leu Ile Lys		
2070	5380	5385	5390
2071	Asp Gly Thr Lys His Ser Met Val Ile Lys Ser Ala Ala Phe Glu Asp		
2072	5395	5400	5405
2073	Glu Ala Lys Tyr Met Phe Glu Ala Glu Asp Lys His Thr Ser Gly Lys		
2074	5410	5415	5420
2075	Leu Ile Ile Glu Gly Ile Arg Leu Lys Phe Leu Thr Pro Leu Lys Asp		
2076	5425	5430	5435
2077	Val Thr Ala Lys Glu Lys Glu Ser Ala Val Phe Thr Val Glu Leu Ser		
2078	5445	5450	5455
2079	His Asp Asn Ile Arg Val Lys Trp Phe Lys Asn Asp Gln Arg Leu His		
2080	5460	5465	5470
2081	Thr Thr Arg Ser Val Ser Met Gln Asp Glu Gly Lys Thr His Ser Ile		
2082	5475	5480	5485
2083	Thr Phe Lys Asp Leu Ser Ile Asp Asp Thr Ser Gln Ile Arg Val Glu		
2084	5490	5495	5500
2085	Ala Met Gly Met Ser Ser Glu Ala Lys Leu Thr Val Leu Glu Gly Asp		
2086	5505	5510	5515
2087	Pro Tyr Phe Thr Gly Lys Leu Gln Asp Tyr Thr Gly Val Glu Lys Asp		
2088	5525	5530	5535
2089	Glu Val Ile Leu Gln Cys Glu Ile Ser Lys Ala Asp Ala Pro Val Lys		
2090	5540	5545	5550
2091	Trp Phe Lys Asp Gly Lys Glu Ile Lys Pro Ser Lys Asn Ala Val Ile		
2092	5555	5560	5565
2093	Lys Thr Asp Gly Lys Lys Arg Met Leu Ile Leu Lys Lys Ala Leu Lys		
2094	5570	5575	5580
2095	Ser Asp Ile Gly Gln Tyr Thr Cys Asp Cys Gly Thr Asp Lys Thr Ser		
2096	5585	5590	5595
2097	5600		
2098	Gly Lys Leu Asp Ile Glu Asp Arg Glu Ile Lys Leu Val Arg Pro Leu		
2099	5605	5610	5615
2100	Ile Ser Glu Asp Asp Ile His Ala Asn Trp Lys Leu Lys Gly Ile Ala		
2101	5620	5625	5630
2102	5635	5640	5645
2103	Leu Leu Gln Thr Pro Asp Cys Glu Ile Lys Glu Glu Gly Lys Ile His		
2104	5650	5655	5660
2105	Ser Leu Val Leu His Asn Cys Arg Leu Asp Gln Thr Gly Lys Val Asp		
2106	5665	5670	5675
2107	5680		
2108	Phe Gln Ala Ala Asn Val Lys Ser Ser Ala His Leu Arg Val Lys Pro		
2109	5685	5690	5695
2110	Arg Val Ile Gly Leu Leu Arg Pro Leu Lys Asp Val Thr Val Thr Ala		
	5700	5705	5710

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

2111 Gly Glu Thr Ala Thr Phe Asp Cys Glu Leu Ser Tyr Glu Asp Ile Pro
2112 5715 5720 5725
2113 Val Glu Trp Tyr Leu Lys Gly Lys Lys Leu Glu Pro Ser Asp Lys Val
2114 5730 5735 5740
2115 Val Pro Arg Ser Glu Gly Lys Val His Thr Leu Thr Leu Arg Asp Val
2116 5745 5750 5755 5760
2117 Lys Leu Glu Asp Ala Gly Glu Val Gln Leu Thr Ala Lys Asp Phe Lys
2118 5765 5770 5775
2119 Thr His Ala Asn Leu Phe Val Lys Glu Pro Pro Val Glu Phe Thr Lys
2120 5780 5785 5790
2121 Pro Leu Glu Asp Gln Thr Val Glu Glu Gly Ala Thr Ala Val Leu Glu
2122 5795 5800 5805
2123 Cys Glu Val Ser Arg Glu Asn Ala Lys Val Lys Trp Phe Lys Asn Gly
2124 5810 5815 5820
2125 Thr Glu Ile Leu Lys Ser Lys Lys Tyr Glu Ile Val Ala Asp Gly Arg
2126 5825 5830 5835 5840
2127 Val Arg Lys Leu Val Ile His Asp Cys Thr Pro Glu Asp Ile Lys Thr
2128 5845 5850 5855
2129 Tyr Thr Cys Asp Ala Lys Asp Phe Lys Thr Ser Cys Asn Leu Asn Val
2130 5860 5865 5870
2131 Val Pro Pro His Val Glu Phe Leu Arg Pro Leu Thr Asp Leu Gln Val
2132 5875 5880 5885
2133 Arg Glu Lys Glu Met Ala Arg Phe Glu Cys Glu Leu Ser Arg Glu Asn
2134 5890 5895 5900
2135 Ala Lys Val Lys Trp Phe Lys Asp Gly Ala Glu Ile Lys Lys Gly Lys
2136 5905 5910 5915 5920
2137 Lys Tyr Asp Ile Ile Ser Lys Gly Ala Val Arg Ile Leu Val Ile Asn
2138 5925 5930 5935
2139 Lys Cys Leu Leu Asp Asp Glu Ala Glu Tyr Ser Cys Glu Val Arg Thr
2140 5940 5945 5950
2141 Ala Arg Thr Ser Gly Met Leu Thr Val Leu Glu Glu Ala Val Phe
2142 5955 5960 5965
2143 Thr Lys Asn Leu Ala Asn Ile Glu Val Ser Glu Thr Asp Thr Ile Lys
2144 5970 5975 5980
2145 Leu Val Cys Glu Val Ser Lys Pro Gly Ala Glu Val Ile Trp Tyr Lys
2146 5985 5990 5995 6000
2147 Gly Asp Glu Glu Ile Ile Glu Thr Gly Arg Tyr Glu Ile Leu Thr Glu
2148 6005 6010 6015
2149 Gly Arg Lys Arg Ile Leu Val Ile Gln Asn Ala His Leu Glu Asp Ala
2150 6020 6025 6030
2151 Gly Asn Tyr Asn Cys Arg Leu Pro Ser Ser Arg Thr Asp Gly Lys Val
2152 6035 6040 6045
2153 Lys Val His Glu Leu Ala Ala Glu Phe Ile Ser Lys Pro Gln Asn Leu
2154 6050 6055 6060
2155 Glu Ile Leu Glu Gly Glu Lys Ala Glu Phe Val Cys Ser Ile Ser Lys
2156 6065 6070 6075 6080
2157 Glu Ser Phe Pro Val Gln Trp Lys Arg Asp Asp Lys Thr Leu Glu Ser
2158 6085 6090 6095
2159 Gly Asp Lys Tyr Asp Val Ile Ala Asp Gly Lys Lys Arg Val Leu Val

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

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2160      6100      6105      6110
2161 Val Lys Asp Ala Thr Leu Gln Asp Met Gly Thr Tyr Val Val Met Val
2162      6115      6120      6125
2163 Gly Ala Ala Arg Ala Ala His Leu Thr Val Ile Glu Lys Leu Arg
2164      6130      6135      6140
2165 Ile Val Val Pro Leu Lys Asp Thr Arg Val Lys Glu Gln Gln Glu Val
2166 6145      6150      6155      6160
2167 Val Phe Asn Cys Glu Val Asn Thr Glu Gly Ala Lys Ala Lys Trp Phe
2168      6165      6170      6175
2169 Arg Asn Glu Glu Ala Ile Phe Asp Ser Ser Lys Tyr Ile Ile Leu Gln
2170      6180      6185      6190
2171 Lys Asp Leu Val Tyr Thr Leu Arg Ile Arg Asp Ala His Leu Asp Asp
2172      6195      6200      6205
2173 Gln Ala Asn Tyr Asn Val Ser Leu Thr Asn His Arg Gly Glu Asn Val
2174 6210      6215      6220
2175 Lys Ser Ala Ala Asn Leu Ile Val Glu Glu Glu Asp Leu Arg Ile Val
2176 6225      6230      6235      6240
2177 Glu Pro Leu Lys Asp Ile Glu Thr Met Glu Lys Lys Ser Val Thr Phe
2178      6245      6250      6255
2179 Trp Cys Lys Val Asn Arg Leu Asn Val Thr Ile Lys Trp Thr Lys Asn
2180      6260      6265      6270
2181 Gly Glu Glu Val Pro Phe Asp Asn Arg Val Ser Tyr Arg Val Asp Lys
2182 6275      6280      6285
2183 Tyr Lys His Met Leu Thr Ile Lys Asp Cys Gly Phe Pro Asp Glu Gly
2184 6290      6295      6300
2185 Glu Tyr Ile Val Thr Ala Gly Gln Asp Lys Ser Val Ala Glu Leu Leu
2186 6305      6310      6315      6320
2187 Ile Ile Glu Ala Pro Thr Glu Phe Val Glu His Leu Glu Asp Gln Thr
2188 6325      6330      6335
2189 Val Thr Glu Phe Asp Asp Ala Val Phe Ser Cys Gln Leu Ser Arg Glu
2190 6340      6345      6350
2191 Lys Ala Asn Val Lys Trp Tyr Arg Asn Gly Arg Glu Ile Lys Glu Gly
2192 6355      6360      6365
2193 Lys Lys Tyr Lys Phe Glu Lys Asp Gly Ser Ile His Arg Leu Ile Ile
2194 6370      6375      6380
2195 Lys Asp Cys Arg Leu Asp Asp Glu Cys Glu Tyr Ala Cys Gly Val Glu
2196 6385      6390      6395      6400
2197 Asp Arg Lys Ser Arg Ala Arg Leu Phe Val Glu Glu Ile Pro Val Glu
2198 6405      6410      6415
2199 Ile Ile Arg Pro Pro Gln Asp Ile Leu Glu Ala Pro Gly Ala Asp Val
2200 6420      6425      6430
2201 Val Phe Leu Ala Glu Leu Asn Lys Asp Lys Val Glu Val Gln Trp Leu
2202 6435      6440      6445
2203 Arg Asn Asn Met Val Val Gln Gly Asp Lys His Gln Met Met Ser
2204 6450      6455      6460
2205 Glu Gly Lys Ile His Arg Leu Gln Ile Cys Asp Ile Lys Pro Arg Asp
2206 6465      6470      6475      6480
2207 Gln Gly Glu Tyr Arg Phe Ile Ala Lys Asp Lys Glu Ala Arg Ala Lys
2208 6485      6490      6495

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

2209 Leu Glu Leu Ala Ala Ala Pro Lys Ile Lys Thr Ala Asp Gln Asp Leu
 2210 6500 6505 6510
 2211 Val Val Asp Val Gly Lys Pro Leu Thr Met Val Val Pro Tyr Asp Ala
 2212 6515 6520 6525
 2213 Tyr Pro Lys Ala Glu Ala Glu Trp Phe Lys Glu Asn Glu Pro Leu Ser
 2214 6530 6535 6540
 2215 Thr Lys Thr Ile Asp Thr Thr Ala Glu Gln Thr Ser Phe Arg Ile Leu
 2216 6545 6550 6555 6560
 2217 Glu Ala Lys Lys Gly Asp Lys Gly Arg Tyr Lys Ile Val Leu Gln Asn
 2218 6565 6570 6575
 2219 Lys His Gly Lys Ala Glu Gly Phe Ile Asn Leu Lys Val Ile Asp Val
 2220 6580 6585 6590
 2221 Pro Gly Pro Val Arg Asn Leu Glu Val Thr Glu Thr Phe Asp Gly Glu
 2222 6595 6600 6605
 2223 Val Ser Leu Ala Trp Glu Glu Pro Leu Thr Asp Gly Ser Lys Ile
 2224 6610 6615 6620
 2225 Ile Gly Tyr Val Val Glu Arg Arg Asp Ile Lys Arg Lys Thr Trp Val
 2226 6625 6630 6635 6640
 2227 Leu Ala Thr Asp Arg Ala Glu Ser Cys Glu Phe Thr Val Thr Gly Leu
 2228 6645 6650 6655
 2229 Gln Lys Gly Gly Val Glu Tyr Leu Phe Arg Val Ser Ala Arg Asn Arg
 2230 6660 6665 6670
 2231 Val Gly Thr Gly Glu Pro Val Glu Thr Asp Asn Pro Val Glu Ala Arg
 2232 6675 6680 6685
 2233 Ser Lys Tyr Asp Val Pro Gly Pro Pro Leu Asn Val Thr Ile Thr Asp
 2234 6690 6695 6700
 2235 Val Asn Arg Phe Gly Val Ser Leu Thr Trp Glu Pro Pro Glu Tyr Asp
 2236 6705 6710 6715 6720
 2237 Gly Gly Ala Glu Ile Thr Asn Tyr Val Ile Glu Leu Arg Asp Lys Thr
 2238 6725 6730 6735
 2239 Ser Ile Arg Trp Asp Thr Ala Met Thr Val Arg Ala Glu Asp Leu Ser
 2240 6740 6745 6750
 2241 Ala Thr Val Thr Asp Val Val Glu Gly Gln Glu Tyr Ser Phe Arg Val
 2242 6755 6760 6765
 2243 Arg Ala Glu Asn Arg Ile Gly Val Gly Lys Pro Ser Ala Ala Thr Pro
 2244 6770 6775 6780
 2245 Phe Val Lys Val Ala Asp Pro Ile Glu Arg Pro Ser Pro Pro Val Asn
 2246 6785 6790 6795 6800
 2247 Leu Thr Ser Ser Asp Gln Thr Gln Ser Ser Val Gln Leu Lys Trp Glu
 2248 6805 6810 6815
 2249 Pro Pro Leu Lys Asp Gly Gly Ser Pro Ile Leu Gly Tyr Ile Ile Glu
 2250 6820 6825 6830
 2251 Arg Cys Glu Glu Gly Lys Asp Asn Trp Ile Arg Cys Asn Met Lys Leu
 2252 6835 6840 6845
 2253 Val Pro Glu Leu Thr Tyr Lys Val Thr Gly Leu Glu Lys Gly Asn Lys
 2254 6850 6855 6860
 2255 Tyr Leu Tyr Arg Val Ser Ala Glu Asn Lys Ala Gly Val Ser Asp Pro
 2256 6865 6870 6875 6880
 2257 Ser Glu Ile Leu Gly Pro Leu Thr Ala Asp Asp Ala Phe Val Glu Pro

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

2258	6885	6890	6895
2259	Thr Met Asp Leu Ser Ala Phe Lys Asp Gly Leu Glu Val Ile Val Pro		
2260	6900	6905	6910
2261	Asn Pro Ile Thr Ile Leu Val Pro Ser Thr Gly Tyr Pro Arg Pro Thr		
2262	6915	6920	6925
2263	Ala Thr Trp Cys Phe Gly Asp Lys Val Leu Glu Thr Gly Asp Arg Val		
2264	6930	6935 ..	6940
2265	Lys Met Lys Thr Leu Ser Ala Tyr Ala Glu Leu Val Ile Ser Pro Ser		
2266	6945	6950	6955
2267	Glu Arg Ser Asp Lys Gly Ile Tyr Thr Leu Lys Leu Glu Asn Arg Val		
2268	6965	6970	6975
2269	Lys Thr Ile Ser Gly Glu Ile Asp Val Asn Val Ile Ala Arg Pro Ser		
2270	6980	6985	6990
2271	Ala Pro Lys Glu Leu Lys Phe Gly Asp Ile Thr Lys Asp Ser Val His		
2272	6995	7000	7005
2273	Leu Thr Trp Glu Pro Pro Asp Asp Gly Gly Ser Pro Leu Thr Gly		
2274	7010	7015	7020
2275	Tyr Val Val Glu Lys Arg Glu Val Ser Arg Lys Thr Trp Thr Lys Val		
2276	7025	7030	7035
2277	Met Asp Phe Val Thr Asp Leu Glu Phe Thr Val Pro Asp Leu Val Gln		
2278	7045	7050	7055
2279	Gly Lys Glu Tyr Leu Phe Lys Val Cys Ala Arg Asn Lys Cys Gly Pro		
2280	7060	7065	7070
2281	Gly Glu Pro Ala Tyr Val Asp Glu Pro Val Asn Met Ser Thr Pro Ala		
2282	7075	7080	7085
2283	Thr Val Pro Asp Pro Pro Glu Asn Val Lys Trp Arg Asp Arg Thr Ala		
2284	7090	7095	7100
2285	Asn Ser Ile Phe Leu Thr Trp Asp Pro Pro Lys Asn Asp Gly Gly Ser		
2286	7105	7110	7115
2287	Arg Ile Lys Gly Tyr Ile Val Glu Arg Cys Pro Arg Gly Ser Asp Lys		
2288	7125	7130	7135
2289	Trp Val Ala Cys Gly Glu Pro Val Ala Glu Thr Lys Met Gln Val Thr		
2290	7140	7145	7150
2291	Gly Leu Glu Gln Gly Lys Trp Tyr Ala Tyr Arg Val Lys Thr Leu Asn		
2292	7155	7160	7165
2293	Arg Gln Gly Ala Ser Lys Pro Ser Arg Pro Thr Glu Glu Ile Gln Ala		
2294	7170	7175	7180
2295	Val Asp Thr Gln Glu Ala Pro Glu Ile Phe Leu Asp Val Lys Leu Leu		
2296	7185	7190	7195
2297	Ala Gly Leu Thr Val Lys Ala Gly Thr Lys Ile Glu Leu Pro Ala Thr		
2298	7205	7210	7215
2299	Val Thr Gly Lys Pro Glu Pro Lys Ile Thr Trp Thr Lys Ala Asp Met		
2300	7220	7225	7230
2301	Ile Leu Lys Gln Asp Lys Arg Ile Thr Ile Glu Asn Val Pro Lys Lys		
2302	7235	7240	7245
2303	Ser Thr Val Thr Ile Val Asp Ser Lys Arg Ser Asp Thr Gly Thr Tyr		
2304	7250	7255	7260
2305	Ile Ile Glu Ala Val Asn Val Cys Gly Arg Ala Thr Ala Val Val Glu		
2306	7265	7270	7275
			7280

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set.: A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\1759508.raw

2307 Val Asn Val Leu Asp Pro Gly Pro Pro Ala Ala Phe Asp Ile Thr
 2308 7285 7290 7295
 2309 Asp Val Thr Asn Glu Ser Cys Leu Leu Thr Trp Asn Pro Pro Arg Asp
 2310 7300 7305 7310
 2311 Asp Gly Gly Ser Lys Ile Thr Asn Tyr Val Val Glu Arg Arg Ala Thr
 2312 7315 7320 7325
 2313 Asp Ser Glu Val Trp His Lys Leu Ser Ser Thr Val Lys Asp Thr Asn
 2314 7330 7335 7340
 2315 Phe Lys Ala Thr Lys Leu Ile Pro Asn Lys Glu Tyr Ile Phe Arg Val
 2316 7345 7350 7355 7360
 2317 Ala Ala Glu Asn Met Tyr Gly Ala Gly Glu Pro Val Gln Ala Ser Pro
 2318 7365 7370 7375
 2319 Ile Thr Ala Lys Tyr Gly Asp Pro Gly Pro Pro Thr Arg Leu
 2320 7380 7385 7390
 2321 Glu Pro Ser Asp Ile Thr Lys Asp Ala Val Thr Leu Thr Trp Cys Glu
 2322 7395 7400 7405
 2323 Pro Asp Asp Asp Gly Gly Ser Pro Ile Thr Gly Tyr Trp Val Glu Arg
 2324 7410 7415 7420
 2325 Leu Asp Pro Asp Thr Asp Lys Trp Val Arg Cys Asn Lys Met Pro Val
 2326 7425 7430 7435 7440
 2327 Lys Asp Thr Thr Tyr Arg Val Lys Gly Leu Thr Asn Lys Lys Tyr
 2328 7445 7450 7455
 2329 Arg Phe Arg Val Leu Ala Glu Asn Leu Ala Gly Pro Gly Lys Pro Ser
 2330 7460 7465 7470
 2331 Lys Ser Thr Glu Pro Ile Leu Ile Lys Asp Pro Ile Asp Pro Pro Trp
 2332 7475 7480 7485
 2333 Pro Pro Gly Lys Pro Thr Val Lys Asp Val Gly Lys Thr Ser Val Arg
 2334 7490 7495 7500
 2335 Leu Asn Trp Thr Lys Pro Glu His Asp Gly Gly Ala Lys Ile Glu Ser
 2336 7505 7510 7515 7520
 2337 Tyr Val Ile Glu Met Leu Lys Thr Gly Thr Asp Glu Trp Val Arg Val
 2338 7525 7530 7535
 2339 Ala Glu Gly Val Pro Thr Thr Gln His Leu Leu Pro Gly Leu Met Glu
 2340 7540 7545 7550
 2341 Gly Gln Glu Tyr Ser Phe Arg Val Arg Ala Val Asn Lys Ala Gly Glu
 2342 7555 7560 7565
 2343 Ser Glu Pro Ser Glu Pro Ser Asp Pro Val Leu Cys Arg Glu Lys Leu
 2344 7570 7575 7580
 2345 Tyr Pro Pro Ser Pro Arg Trp Leu Glu Val Ile Asn Ile Thr Lys
 2346 7585 7590 7595 7600
 2347 Asn Thr Ala Asp Leu Lys Trp Thr Val Pro Glu Lys Asp Gly Gly Ser
 2348 7605 7610 7615
 2349 Pro Ile Thr Asn Tyr Ile Val Glu Lys Arg Asp Val Arg Arg Lys Gly
 2350 7620 7625 7630
 2351 Trp Gln Thr Val Asp Thr Thr Val Lys Asp Thr Lys Cys Thr Val Thr
 2352 7635 7640 7645
 2353 Pro Leu Thr Glu Gly Ser Leu Tyr Val Phe Arg Val Ala Ala Glu Asn
 2354 7650 7655 7660
 2355 Ala Ile Gly Gln Ser Asp Tyr Thr Glu Ile Glu Asp Ser Val Leu Ala

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

2356	7665	7670	7675	7680
2357	Lys Asp Thr Phe Thr Thr Pro Gly Pro Pro Tyr Ala Leu Ala Val Val			
2358	7685	7690	7695	
2359	Asp Val Thr Lys Arg His Val Asp Leu Lys Trp Glu Pro Pro Lys Asn			
2360	7700	7705	7710	
2361	Asp Gly Gly Arg Pro Ile Gln Arg Tyr Val Ile Glu Lys Lys Glu Arg			
2362	7715	7720	7725	
2363	Leu Gly Thr Arg Trp Val Lys Ala Gly Lys Thr Ala Gly Pro Asp Cys			
2364	7730	7735	7740	
2365	Asn Phe Arg Val Thr Asp Val Ile Glu Gly Thr Glu Val Glu Phe Gln			
2366	7745	7750	7755	7760
2367	Val Arg Ala Glu Asn Glu Ala Gly Val Gly His Pro Ser Glu Pro Thr			
2368	7765	7770	7775	
2369	Glu Ile Leu Ser Ile Glu Asp Pro Thr Ser Pro Pro Ser Pro Pro Leu			
2370	7780	7785	7790	
2371	Asp Leu His Val Thr Asp Ala Gly Arg Lys His Ile Ala Ile Ala Trp			
2372	7795	7800	7805	
2373	Lys Pro Pro Glu Lys Asn Gly Gly Ser Pro Ile Ile Gly Tyr His Val			
2374	7810	7815	7820	
2375	Glu Met Cys Pro Val Gly Thr Glu Lys Trp Met Arg Val Asn Ser Arg			
2376	7825	7830	7835	7840
2377	Pro Ile Lys Asp Leu Lys Phe Lys Val Glu Glu Gly Val Val Pro Asp			
2378	7845	7850	7855	
2379	Lys Glu Tyr Val Leu Arg Val Arg Ala Val Asn Ala Ile Gly Val Ser			
2380	7860	7865	7870	
2381	Glu Pro Ser Glu Ile Ser Glu Asn Val Val Ala Lys Asp Pro Asp Cys			
2382	7875	7880	7885	
2383	Lys Pro Thr Ile Asp Leu Glu Thr His Asp Ile Ile Val Ile Glu Gly			
2384	7890	7895	7900	
2385	Glu Lys Leu Ser Ile Pro Val Pro Phe Arg Ala Val Pro Val Pro Thr			
2386	7905	7910	7915	7920
2387	Val Ser Trp His Lys Asp Gly Lys Glu Val Lys Ala Ser Asp Arg Leu			
2388	7925	7930	7935	
2389	Thr Met Lys Asn Asp His Ile Ser Ala His Leu Glu Val Pro Lys Ser			
2390	7940	7945	7950	
2391	Val Arg Ala Asp Ala Gly Ile Tyr Thr Ile Thr Leu Glu Asn Lys Leu			
2392	7955	7960	7965	
2393	Gly Ser Ala Thr Ala Ser Ile Asn Val Lys Val Ile Gly Leu Pro Gly			
2394	7970	7975	7980	
2395	Pro Cys Lys Asp Ile Lys Ala Ser Asp Ile Thr Lys Ser Ser Cys Lys			
2396	7985	7990	7995	8000
2397	Leu Thr Trp Glu Pro Pro Glu Phe Asp Gly Gly Thr Pro Ile Leu His			
2398	8005	8010	8015	
2399	Tyr Val Leu Glu Arg Arg Glu Ala Gly Arg Arg Thr Tyr Ile Pro Val			
2400	8020	8025	8030	
2401	Met Ser Gly Glu Asn Lys Leu Ser Trp Thr Val Lys Asp Leu Ile Pro			
2402	8035	8040	8045	
2403	Asn Gly Glu Tyr Phe Arg Val Lys Ala Val Asn Lys Val Gly Gly			
2404	8050	8055	8060	

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

2405 Gly Glu Tyr Ile Glu Leu Lys Asn Pro Val Ile Ala Gln Asp Pro Lys
 2406 8065 8070 8075 8080
 2407 Gln Pro Pro Asp Pro Pro Val Asp Val Glu Val His Asn Pro Thr Ala
 2408 8085 8090 8095
 2409 Glu Ala Met Thr Ile Thr Trp Lys Pro Pro Leu Tyr Asp Gly Gly Ser
 2410 8100 8105 8110
 2411 Lys Ile Met Gly Tyr Ile Ile Glu Lys Ile Ala Lys Gly Glu Glu Arg
 2412 8115 8120 8125
 2413 Trp Lys Arg Cys Asn Glu His Leu Val Pro Ile Leu Thr Tyr Thr Ala
 2414 8130 8135 8140
 2415 Lys Gly Leu Glu Glu Gly Lys Glu Tyr Gln Phe Arg Val Arg Ala Glu
 2416 8145 8150 8155 8160
 2417 Asn Ala Ala Gly Ile Ser Glu Pro Ser Arg Ala Thr Pro Pro Thr Lys
 2418 8165 8170 8175
 2419 Ala Val Asp Pro Ile Asp Ala Pro Lys Val Ile Leu Arg Thr Ser Leu
 2420 8180 8185 8190
 2421 Glu Val Lys Arg Gly Asp Glu Ile Ala Leu Asp Ala Ser Ile Ser Gly
 2422 8195 8200 8205
 2423 Ser Pro Tyr Pro Thr Ile Thr Trp Ile Lys Asp Glu Asn Val Ile Val
 2424 8210 8215 8220
 2425 Pro Glu Glu Ile Lys Lys Arg Ala Ala Pro Leu Val Arg Arg Arg Lys
 2426 8225 8230 8235 8240
 2427 Gly Glu Val Gln Glu Glu Glu Pro Phe Val Leu Pro Leu Thr Gln Arg
 2428 8245 8250 8255
 2429 Leu Ser Ile Asp Asn Ser Lys Lys Gly Glu Ser Gln Leu Arg Val Arg
 2430 8260 8265 8270
 2431 Asp Ser Leu Arg Pro Asp His Gly Leu Tyr Met Ile Lys Val Glu Asn
 2432 8275 8280 8285
 2433 Asp His Gly Ile Ala Lys Ala Pro Cys Thr Val Ser Val Leu Asp Thr
 2434 8290 8295 8300
 2435 Pro Gly Pro Pro Ile Asn Phe Val Phe Glu Asp Ile Arg Lys Thr Ser
 2436 8305 8310 8315 8320
 2437 Val Leu Cys Lys Trp Glu Pro Pro Leu Asp Asp Gly Gly Ser Glu Ile
 2438 8325 8330 8335
 2439 Ile Asn Tyr Thr Leu Glu Lys Lys Asp Lys Thr Lys Pro Asp Ser Glu
 2440 8340 8345 8350
 2441 Trp Ile Val Val Thr Ser Thr Leu Arg His Cys Lys Tyr Ser Val Thr
 2442 8355 8360 8365
 2443 Lys Leu Ile Glu Gly Lys Glu Tyr Leu Phe Arg Val Arg Ala Glu Asn
 2444 8370 8375 8380
 2445 Arg Phe Gly Pro Gly Pro Pro Cys Val Ser Lys Pro Leu Val Ala Lys
 2446 8385 8390 8395 8400
 2447 Asp Pro Phe Gly Pro Pro Asp Ala Pro Asp Lys Pro Ile Val Glu Asp
 2448 8405 8410 8415
 2449 Val Thr Ser Asn Ser Met Leu Val Lys Trp Asn Glu Pro Lys Asp Asn
 2450 8420 8425 8430
 2451 Gly Ser Pro Ile Leu Gly Tyr Trp Leu Glu Lys Arg Glu Val Asn Ser
 2452 8435 8440 8445
 2453 Thr His Trp Ser Arg Val Asn Lys Ser Leu Leu Asn Ala Leu Lys Ala

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

2454	8450	8455	8460
2455	Asn Val Asp Gly Leu Leu Glu Gly Leu Thr Tyr Val Phe Arg Val Cys		
2456	8465	8470	8475
2457	Ala Glu Asn Ala Ala Gly Pro Gly Lys Phe Ser Pro Pro Ser Asp Pro		8480
2458	8485	8490	8495
2459	Lys Thr Ala His Asp Pro Ile Ser Pro Pro Gly Pro Pro Ile Pro Arg		
2460	8500	8505	8510
2461	Val Thr Asp Thr Ser Ser Thr Thr Ile Glu Leu Glu Trp Glu Pro Pro		
2462	8515	8520	8525
2463	Ala Phe Asn Gly Gly Glu Ile Val Gly Tyr Phe Val Asp Lys Gln		
2464	8530	8535	8540
2465	Leu Val Gly Thr Asn Lys Trp Ser Arg Cys Thr Glu Lys Met Ile Lys		
2466	8545	8550	8555
2467	Val Arg Gln Tyr Thr Val Lys Glu Ile Arg Glu Gly Ala Asp Tyr Lys		8560
2468	8565	8570	8575
2469	Leu Arg Val Ser Ala Val Asn Ala Ala Gly Glu Gly Pro Pro Gly Glu		
2470	8580	8585	8590
2471	Thr Gln Pro Val Thr Val Ala Glu Pro Gin Glu Pro Pro Ala Val Glu		
2472	8595	8600	8605
2473	Leu Asp Val Ser Val Lys Gly Gly Ile Gln Ile Met Ala Gly Lys Thr		
2474	8610	8615	8620
2475	Leu Arg Ile Pro Ala Val Val Thr Gly Arg Pro Val Pro Thr Lys Val		
2476	8625	8630	8635
2477	Trp Thr Lys Glu Glu Gly Glu Leu Asp Lys Asp Arg Val Val Ile Asp		8640
2478	8645	8650	8655
2479	Asn Val Gly Thr Lys Ser Glu Leu Ile Ile Lys Asp Ala Leu Arg Lys		
2480	8660	8665	8670
2481	Asp His Gly Arg Tyr Val Ile Thr Ala Thr Asn Ser Cys Gly Ser Lys		
2482	8675	8680	8685
2483	Phe Ala Ala Ala Arg Val Glu Val Phe Asp Val Pro Gly Pro Val Leu		
2484	8690	8695	8700
2485	Asp Leu Lys Pro Val Val Thr Asn Arg Lys Met Cys Leu Leu Asn Trp		
2486	8705	8710	8715
2487	Ser Asp Pro Glu Asp Asp Gly Gly Ser Glu Ile Thr Gly Phe Ile Ile		8720
2488	8725	8730	8735
2489	Glu Arg Lys Asp Ala Lys Met His Thr Trp Arg Gln Pro Ile Glu Thr		
2490	8740	8745	8750
2491	Glu Arg Ser Lys Cys Asp Ile Thr Gly Leu Leu Glu Gly Gln Glu Tyr		
2492	8755	8760	8765
2493	Lys Phe Arg Val Ile Ala Lys Asn Lys Phe Gly Cys Gly Pro Pro Val		
2494	8770	8775	8780
2495	Glu Ile Gly Pro Ile Leu Ala Val Asp Pro Leu Gly Pro Pro Thr Ser		
2496	8785	8790	8795
2497	Pro Glu Arg Leu Thr Tyr Thr Glu Arg Gln Arg Ser Thr Ile Thr Leu		8800
2498	8805	8810	8815
2499	Asp Trp Lys Glu Pro Arg Ser Asn Gly Gly Ser Pro Ile Gln Gly Tyr		
2500	8820	8825	8830
2501	Ile Ile Glu Lys Arg Arg His Asp Lys Pro Asp Phe Glu Arg Val Asn		
2502	8835	8840	8845

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786_381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

2503 Lys Arg Leu Cys Pro Thr Thr Ser Phe Leu Val Glu Asn Leu Asp Glu
 2504 8850 8855 8860
 2505 His Gln Met Tyr Glu Phe Arg Val Lys Ala Val Asn Glu Ile Gly Glu
 2506 8865 8870 8875 8880
 2507 Ser Glu Pro Ser Leu Pro Leu Asn Val Val Ile Gln Asp Asp Glu Val
 2508 8885 8890 8895
 2509 Pro Pro Thr Ile Lys Leu Arg Leu Ser Val Arg Gly Asp Thr Ile Lys
 2510 8900 8905 8910
 2511 Val Lys Ala Gly Glu Pro Val His Ile Pro Ala Asp Val Thr Gly Leu
 2512 8915 8920 8925
 2513 Pro Met Pro Lys Ile Glu Trp Ser Lys Asn Glu Thr Val Ile Glu Lys
 2514 8930 8935 8940
 2515 Pro Thr Asp Ala Leu Gln Ile Thr Lys Glu Glu Val Ser Arg Ser Glu
 2516 8945 8950 8955 8960
 2517 Ala Lys Thr Glu Ser Ile Pro Lys Ala Val Arg Glu Asp Lys Gly
 2518 8965 8970 8975
 2519 Thr Tyr Thr Val Thr Ala Ser Asn Arg Leu Gly Ser Val Phe Arg Asn
 2520 8980 8985 8990
 2521 Val His Val Glu Val Tyr Asp Arg Pro Ser Pro Pro Arg Asn Leu Ala
 2522 8995 9000 9005
 2523 Val Thr Asp Ile Lys Ala Glu Ser Cys Tyr Leu Thr Trp Asp Ala Pro
 2524 9010 9015 9020
 2525 Leu Asp Asn Gly Gly Ser Glu Ile Thr His Tyr Val Ile Asp Lys Arg
 2526 9025 9030 9035 9040
 2527 Asp Ala Ser Arg Lys Lys Ala Glu Trp Glu Glu Val Thr Asn Thr Ala
 2528 9045 9050 9055
 2529 Val Glu Lys Arg Tyr Gly Ile Trp Lys Leu Ile Pro Asn Gln Tyr
 2530 9060 9065 9070
 2531 Glu Phe Arg Val Arg Ala Val Asn Lys Tyr Gly Ile Ser Asp Glu Cys
 2532 9075 9080 9085
 2533 Lys Ser Asp Lys Val Val Ile Gln Asp Pro Tyr Arg Leu Pro Gly Pro
 2534 9090 9095 9100
 2535 Pro Gly Lys Pro Lys Val Leu Ala Arg Thr Lys Gly Ser Met Leu Val
 2536 9105 9110 9115 9120
 2537 Ser Trp Thr Pro Pro Leu Asp Asn Gly Gly Ser Pro Ile Thr Gly Tyr
 2538 9125 9130 9135
 2539 Trp Leu Glu Lys Arg Glu Glu Gly Ser Pro Tyr Trp Ser Arg Val Ser
 2540 9140 9145 9150
 2541 Arg Ala Pro Ile Thr Lys Val Gly Leu Lys Gly Val Glu Phe Asn Val
 2542 9155 9160 9165
 2543 Pro Arg Leu Leu Glu Gly Val Lys Tyr Gln Phe Arg Ala Met Ala Ile
 2544 9170 9175 9180
 2545 Asn Ala Ala Gly Ile Gly Pro Pro Ser Glu Pro Ser Asp Pro Glu Val
 2546 9185 9190 9195 9200
 2547 Ala Gly Asp Pro Ile Phe Pro Pro Gly Pro Pro Ser Cys Pro Glu Val
 2548 9205 9210 9215
 2549 Lys Asp Lys Thr Lys Ser Ser Ile Ser Leu Gly Trp Lys Pro Pro Ala
 2550 9220 9225 9230
 2551 Lys Asp Gly Gly Ser Pro Ile Lys Gly Tyr Ile Val Glu Met Gln Glu

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
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Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

2552	9235	9240	9245														
2553	Glu	Gly	Thr	Thr	Asp	Trp	Lys	Arg	Val	Asn	Glu	Pro	Asp	Lys	Leu	Ile	
2554		9250		9255		9260											
2555	Thr	Thr	Cys	Glu	Cys	Val	Val	Pro	Asn	Leu	Lys	Glu	Leu	Arg	Lys	Tyr	
2556	9265		9270		9275		9280										
2557	Arg	Phe	Arg	Val	Lys	Ala	Val	Asn	Glu	Ala	Gly	Glu	Ser	Glu	Pro	Ser	
2558		9285		9290		9295											
2559	Asp	Thr	Thr	Gly	Glu	Ile	Pro	Ala	Thr	Asp	Ile	Gln	Glu	Glu	Pro	Glu	
2560		9300		9305		9310											
2561	Val	Phe	Ile	Asp	Ile	Gly	Ala	Gln	Asp	Cys	Leu	Val	Cys	Lys	Ala	Gly	
2562		9315		9320		9325											
2563	Ser	Gln	Ile	Arg	Ile	Pro	Ala	Val	Ile	Lys	Gly	Arg	Pro	Thr	Pro	Lys	
2564		9330		9335		9340											
2565	Ser	Ser	Trp	Glu	Phe	Asp	Gly	Lys	Ala	Lys	Lys	Ala	Met	Lys	Asp	Gly	
2566	9345		9350		9355		9360										
2567	Val	His	Asp	Ile	Pro	Gln	Asp	Ala	Gln	Leu	Glu	Thr	Ala	Glu	Asn	Ser	
2568		9365		9370		9375											
2569	Ser	Val	Ile	Ile	Ile	Pro	Glu	Cys	Lys	Arg	Ser	His	Thr	Gly	Lys	Tyr	
2570		9380		9385		9390											
2571	Ser	Ile	Thr	Ala	Lys	Asn	Lys	Ala	Gly	Gln	Lys	Thr	Ala	Asn	Cys	Arg	
2572		9395		9400		9405											
2573	Val	Lys	Val	Met	Asp	Val	Pro	Gly	Pro	Pro	Lys	Asp	Leu	Lys	Val	Ser	
2574		9410		9415		9420											
2575	Asp	Ile	Thr	Arg	Gly	Ser	Cys	Arg	Leu	Ser	Trp	Lys	Met	Pro	Asp	Asp	
2576	9425		9430		9435		9440										
2577	Asp	Gly	Gly	Asp	Arg	Ile	Lys	Gly	Tyr	Val	Ile	Glu	Lys	Arg	Thr	Ile	
2578		9445		9450		9455											
2579	Asp	Gly	Lys	Ala	Trp	Thr	Lys	Val	Asn	Pro	Asp	Cys	Gly	Ser	Thr	Thr	
2580		9460		9465		9470											
2581	Phe	Val	Val	Pro	Asp	Leu	Leu	Ser	Glu	Gln	Gln	Tyr	Phe	Phe	Arg	Val	
2582		9475		9480		9485											
2583	Arg	Ala	Glu	Asn	Arg	Phe	Gly	Ile	Gly	Pro	Pro	Val	Glu	Thr	Ile	Gln	
2584		9490		9495		9500											
2585	Arg	Thr	Thr	Ala	Arg	Asp	Pro	Ile	Tyr	Pro	Pro	Asp	Pro	Pro	Ile	Lys	
2586	9505		9510		9515		9520										
2587	Leu	Lys	Ile	Gly	Leu	Ile	Thr	Lys	Asn	Thr	Val	His	Leu	Ser	Trp	Lys	
2588		9525		9530		9535											
2589	Pro	Pro	Lys	Asn	Asp	Gly	Gly	Ser	Pro	Val	Thr	His	Tyr	Ile	Val	Glu	
2590		9540		9545		9550											
2591	Cys	Leu	Ala	Trp	Asp	Pro	Thr	Gly	Thr	Lys	Lys	Glu	Ala	Trp	Arg	Gln	
2592		9555		9560		9565											
2593	Cys	Asn	Lys	Arg	Asp	Val	Glu	Glu	Leu	Gln	Phe	Thr	Val	Glu	Asp	Leu	
2594		9570		9575		9580											
2595	Val	Glu	Gly	Gly	Glu	Tyr	Glu	Phe	Arg	Val	Lys	Ala	Asn	Ala	Ala		
2596	9585		9590		9595		9600										
2597	Gly	Val	Ser	Lys	Pro	Ser	Ala	Thr	Val	Gly	Pro	Cys	Asp	Cys	Gln	Arg	
2598		9605		9610		9615											
2599	Pro	Asp	Met	Pro	Pro	Ser	Ile	Asp	Leu	Lys	Glu	Phe	Met	Glu	Val	Glu	
2600		9620		9625		9630											

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

2601 Glu Gly Thr Asn Val Asn Ile Val Ala Lys Ile Lys Gly Val Pro Phe
 2602 9635 9640 9645
 2603 Pro Thr Leu Thr Trp Phe Lys Ala Pro Pro Lys Lys Pro Asp Asn Lys
 2604 9650 9655 9660
 2605 Glu Pro Val Leu Tyr Asp Thr His Val Asn Lys Leu Val Val Asp Asp
 2606 9665 9670 9675 9680
 2607 Thr Cys Thr Leu Val Ile Pro Gln Ser Arg Arg Ser Asp Thr Gly Leu
 2608 9685 9690 9695
 2609 Tyr Thr Ile Thr Ala Val Asn Asn Leu Gly Thr Ala Ser Lys Glu Met
 2610 9700 9705 9710
 2611 Arg Leu Asn Val Leu Gly Arg Pro Gly Pro Pro Val Gly Pro Ile Lys
 2612 9715 9720 9725
 2613 Phe Glu Ser Val Ser Ala Asp Gln Met Thr Leu Ser Trp Phe Pro Pro
 2614 9730 9735 9740
 2615 Lys Asp Asp Gly Gly Ser Lys Ile Thr Asn Tyr Val Ile Glu Lys Arg
 2616 9745 9750 9755 9760
 2617 Glu Ala Asn Arg Lys Thr Trp Val His Val Ser Ser Glu Pro Lys Glu
 2618 9765 9770 9775
 2619 Cys Thr Tyr Thr Ile Pro Lys Leu Leu Glu Gly His Glu Tyr Val Phe
 2620 9780 9785 9790
 2621 Arg Ile Met Ala Gln Asn Lys Tyr Gly Ile Gly Glu Pro Leu Asp Ser
 2622 9795 9800 9805
 2623 Glu Pro Glu Thr Ala Arg Asn Leu Phe Ser Val Pro Gly Ala Pro Asp
 2624 9810 9815 9820
 2625 Lys Pro Thr Val Ser Ser Val Thr Arg Asn Ser Met Thr Val Asn Trp
 2626 9825 9830 9835 9840
 2627 Glu Glu Pro Glu Tyr Asp Gly Gly Ser Pro Val Thr Gly Tyr Trp Leu
 2628 9845 9850 9855
 2629 Glu Met Lys Asp Thr Thr Ser Lys Arg Trp Lys Arg Val Asn Arg Asp
 2630 9860 9865 9870
 2631 Pro Ile Lys Ala Met Thr Leu Gly Val Ser Tyr Lys Val Thr Gly Leu
 2632 9875 9880 9885
 2633 Ile Glu Gly Ser Asp Tyr Gln Phe Arg Val Tyr Ala Ile Asn Ala Ala
 2634 9890 9895 9900
 2635 Gly Val Gly Pro Ala Ser Leu Pro Ser Asp Pro Ala Thr Ala Arg Asp
 2636 9905 9910 9915 9920
 2637 Pro Ile Ala Pro Pro Gly Pro Pro Phe Pro Lys Val Thr Asp Trp Thr
 2638 9925 9930 9935
 2639 Lys Ser Ser Ala Asp Leu Glu Trp Ser Pro Pro Leu Lys Asp Gly Gly
 2640 9940 9945 9950
 2641 Ser Lys Val Thr Gly Tyr Ile Val Glu Tyr Lys Glu Glu Gly Lys Glu
 2642 9955 9960 9965
 2643 Glu Trp Glu Lys Gly Lys Asp Lys Glu Val Arg Gly Thr Lys Leu Val
 2644 9970 9975 9980
 2645 Val Thr Gly Leu Lys Glu Gly Ala Phe Tyr Lys Phe Arg Val Ser Ala
 2646 9985 9990 9995 10000
 2647 Val Asn Ile Ala Gly Ile Gly Glu Pro Gly Glu Val Thr Asp Val Ile
 2648 10005 10010 10015
 2649 Glu Met Lys Asp Arg Leu Val Ser Pro Asp Leu Gln Leu Asp Ala Ser

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

2650	10020	10025	10030
2651	Val Arg Asp Arg Ile Val Val His Ala Gly Val Ile Arg Ile Ile		
2652	10035	10040	10045
2653	Ala Tyr Val Ser Gly Lys Pro Pro Pro Thr Val Thr Trp Asn Met Asn		
E--> 2654	10050	10055	10060
E--> 2655	Glu Arg Thr Leu Pro Gln Glu Ala Thr Ile Glu Thr Thr Ala Ile Ser		
E--> 2656	0065	10070	10075
2657	Ser Ser Met Val Ile Lys Asn Cys Gln Arg Ser His Gln Gly Val Tyr		
2658	10085	10090	10095
2659	Ser Leu Leu Ala Lys Asn Glu Ala Gly Glu Arg Lys Lys Thr Ile Ile		
2660	10100	10105	10110
2661	Val Asp Val Leu Asp Val Pro Gly Pro Val Gly Thr Pro Phe Leu Ala		
2662	10115	10120	10125
2663	His Asn Leu Thr Asn Glu Ser Cys Lys Leu Thr Trp Phe Ser Pro Glu		
E--> 2664	10130	10135	10140
E--> 2665	Asp Asp Gly Gly Ser Pro Ile Thr Asn Tyr Val Ile Glu Lys Arg Glu		
E--> 2666	0145	10150	10155
2667	Ser Asp Arg Arg Ala Trp Thr Pro Val Thr Tyr Thr Val Thr Arg Gln		
2668	10165	10170	10175
2669	Asn Ala Thr Val Gln Gly Leu Ile Gln Gly Lys Ala Tyr Phe Arg		
2670	10180	10185	10190
2671	Ile Ala Ala Glu Asn Ser Ile Gly Met Gly Pro Phe Val Glu Thr Ser		
2672	10195	10200	10205
2673	Glu Ala Leu Val Ile Arg Glu Pro Ile Thr Val Pro Glu Arg Pro Glu		
E--> 2674	10210	10215	10220
E--> 2675	Asp Leu Glu Val Lys Glu Val Thr Lys Asn Thr Val Thr Leu Thr Trp		
E--> 2676	0225	10230	10235
2677	Asn Pro Pro Lys Tyr Asp Gly Gly Ser Glu Ile Asn Tyr Val Leu		
2678	10245	10250	10255
2679	Glu Ser Arg Leu Ile Gly Thr Glu Lys Phe His Lys Val Thr Asn Asp		
2680	10260	10265	10270
2681	Asn Leu Leu Ser Arg Lys Tyr Thr Val Lys Glu Leu Lys Glu Gly Asp		
2682	10275	10280	10285
2683	Thr Tyr Glu Tyr Arg Val Ser Ala Val Asn Ile Val Gly Gln Gly Lys		
E--> 2684	10290	10295	10300
E--> 2685	Pro Ser Phe Cys Thr Lys Pro Ile Thr Cys Lys Asp Glu Leu Ala Pro		
E--> 2686	0305	10310	10315
2687	Pro Thr Leu His Leu Asp Phe Arg Asp Lys Leu Thr Ile Arg Val Gly		
2688	10325	10330	10335
2689	Glu Ala Phe Ala Leu Thr Gly Arg Tyr Ser Gly Lys Pro Lys Pro Lys		
2690	10340	10345	10350
2691	Val Ser Trp Phe Lys Asp Glu Ala Asp Val Leu Glu Asp Asp Arg Thr		
2692	10355	10360	10365
2693	His Ile Lys Thr Thr Pro Ala Thr Leu Ala Leu Glu Lys Ile Lys Ala		
E--> 2694	10370	10375	10380
E--> 2695	Lys Arg Ser Asp Ser Gly Lys Tyr Cys Val Val Val Glu Asn Ser Thr		
E--> 2696	0385	10390	10395
2697	Ser Arg Lys Gly Phe Cys Gln Val Asn Val Val Asp His Pro Gly		
2698	10405	10410	10415

Glu Arg
10065

Asp Asp
10145

Asp Leu
10225

Pro Ser
10305

For left margin numerals, leave
enough space between the first
two amino acids so the numeral
does not fall under any part
of the second amino acid. See
examples at left.

*Please note that this error occurs
throughout the rest of sequence #2.
Please correct all instances.

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

2699 Pro Pro Val Gly Pro Val Ser Phe Asp Glu Val Thr Lys Asp Tyr Met
2700 10420 10425 10430
2701 Val Ile Ser Trp Lys Pro Pro Leu Asp Asp Gly Gly Ser Lys Ile Thr
2702 10435 10440 10445
2703 Asn Tyr Ile Ile Glu Lys Lys Glu Val Gly Lys Asp Val Trp Met Pro
E--> 2704 10450 10455 10460 1
2705 Val Thr Ser Ala Ser Ala Lys Thr Thr Cys Lys Val Ser Lys Leu Leu
E--> 2706 0465 10470 10475 10480
2707 Glu Gly Lys Asp Tyr Ile Phe Arg Ile His Ala Glu Asn Leu Tyr Gly
2708 10485 10490 10495
2709 Ile Ser Asp Pro Leu Val Ser Asp Ser Met Lys Ala Lys Asp Arg Phe
2710 10500 10505 10510
2711 Arg Val Pro Asp Ala Pro Asp Gln Pro Ile Val Thr Glu Val Thr Lys
2712 10515 10520 10525
2713 Asp Ser Ala Leu Val Thr Trp Asn Lys Pro His Asp Gly Gly Lys Pro
E--> 2714 10530 10535 10540 1
2715 Ile Thr Asn Tyr Ile Leu Lys Arg Glu Thr Met Ser Lys Arg Trp
E--> 2716 0545 10550 10555 10560
2717 Ala Arg Val Thr Lys Asp Pro Ile His Pro Tyr Thr Lys Phe Arg Val
2718 10565 10570 10575
2719 Pro Asp Leu Leu Glu Gly Cys Gln Tyr Glu Phe Arg Val Ser Ala Glu
2720 10580 10585 10590
2721 Asn Glu Ile Gly Ile Gly Asp Pro Ser Pro Pro Ser Lys Pro Val Phe
2722 10595 10600 10605
2723 Ala Lys Asp Pro Ile Ala Lys Pro Ser Pro Pro Val Asn Pro Glu Ala
E--> 2724 10610 10615 10620 1
2725 Ile Asp Thr Thr Cys Asn Ser Val Asp Leu Thr Trp Gln Pro Pro Arg
E--> 2726 0625 10630 10635 10640
2727 His Asp Gly Gly Ser Lys Ile Leu Gly Tyr Ile Val Glu Tyr Gln Lys
2728 10645 10650 10655
2729 Val Gly Asp Glu Glu Trp Arg Arg Ala Asn His Thr Pro Glu Ser Cys
2730 10660 10665 10670
2731 Pro Glu Thr Lys Tyr Lys Val Thr Gly Leu Arg Asp Gly Gln Thr Tyr
2732 10675 10680 10685
2733 Lys Phe Arg Val Leu Ala Val Asn Ala Ala Gly Glu Ser Asp Pro Ala
E--> 2734 10690 10695 10700 1
2735 His Val Pro Glu Pro Val Leu Val Lys Asp Arg Leu Glu Pro Pro Glu
E--> 2736 0705 10710 10715 10720
2737 Leu Ile Leu Asp Ala Asn Met Ala Arg Glu Gln His Ile Lys Val Gly
2738 10725 10730 10735
2739 Asp Thr Leu Arg Leu Ser Ala Ile Ile Lys Gly Val Pro Phe Pro Lys
2740 10740 10745 10750
2741 Val Thr Trp Lys Lys Glu Asp Arg Asp Ala Pro Thr Lys Ala Arg Ile
2742 10755 10760 10765
2743 Asp Val Thr Pro Val Gly Ser Lys Leu Glu Ile Arg Asn Ala Ala His
E--> 2744 10770 10775 10780 1
2745 Glu Asp Gly Gly Ile Tyr Ser Leu Thr Val Glu Asn Pro Ala Gly Ser
E--> 2746 0785 10790 10795 10800
2747 Lys Thr Val Ser Val Lys Val Leu Val Asp Lys Pro Gly Pro Pro

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

2748 10805 10810 10815
2749 Arg Asp Leu Glu Val Ser Glu Ile Arg Lys Asp Ser Cys Tyr Leu Thr
2750 10820 10825 10830
2751 Trp Lys Glu Pro Leu Asp Asp Gly Gly Ser Val Ile Thr Asn Tyr Val
2752 10835 10840 10845
2753 Val Glu Arg Arg Asp Val Ala Ser Ala Cln Trp Ser Pro Leu Ser Ala
E--> 2754 10850 10855 10860 1
2755 Thr Ser Lys Lys Lys Ser His Phe Ala Lys His Leu Asn Glu Gly Asn
E--> 2756 0865 10870 10875 10880
2757 Gln Tyr Leu Phe Arg Val Ala Ala Glu Asn Gln Tyr Gly Arg Gly Pro
2758 10885 10890 10895
2759 Phe Val Glu Thr Pro Lys Pro Ile Lys Ala Leu Asp Pro Leu His Pro
2760 10900 10905 10910
2761 Pro Gly Pro Pro Lys Asp Leu His His Val Asp Val Asp Lys Thr Glu
2762 10915 10920 10925
2763 Val Ser Leu Val Trp Asn Lys Pro Asp Arg Asp Gly Gly Ser Pro Ile
E--> 2764 10930 10935 10940 1
2765 Thr Gly Tyr Leu Val Glu Tyr Gln Glu Glu Gly Thr Gln Asp Trp Ile
E--> 2766 0945 10950 10955 10960
2767 Lys Phe Lys Thr Val Thr Asn Leu Glu Cys Val Val Thr Gly Leu Gln
2768 10965 10970 10975
2769 Gln Gly Lys Thr Tyr Arg Phe Arg Val Lys Ala Glu Asn Ile Val Gly
2770 10980 10985 10990
2771 Leu Gly Leu Pro Asp Thr Thr Ile Pro Ile Glu Cys Gln Glu Lys Leu
2772 10995 11000 11005
2773 Val Pro Pro Ser Val Glu Leu Asp Val Lys Leu Ile Glu Gly Leu Val
E--> 2774 11010 11015 11020 1
2775 Val Lys Ala Gly Thr Thr Val Arg Phe Pro Ala Ile Ile Arg Gly Val
E--> 2776 1025 11030 11035 11040
2777 Pro Val Pro Thr Ala Lys Trp Thr Thr Asp Gly Ser Glu Ile Lys Thr
2778 11045 11050 11055
2779 Asp Glu His Tyr Thr Val Glu Thr Asp Asn Phe Ser Ser Val Leu Thr
2780 11060 11065 11070
2781 Ile Lys Asn Cys Leu Arg Arg Asp Thr Gly Glu Tyr Gln Ile Thr Val
2782 11075 11080 11085
2783 Ser Asn Ala Ala Gly Ser Lys Thr Val Ala Val His Leu Thr Val Leu
E--> 2784 11090 11095 11100 1
2785 Asp Val Pro Gly Pro Pro Thr Gly Pro Ile Asn Ile Leu Asp Val Thr
E--> 2786 1105 11110 11115 11120
2787 Pro Glu His Met Thr Ile Ser Trp Gln Pro Pro Lys Asp Asp Gly Gly
2788 11125 11130 11135
2789 Ser Pro Val Ile Asn Tyr Ile Val Glu Lys Gln Asp Thr Arg Lys Asp
2790 11140 11145 11150
2791 Thr Trp Gly Val Val Ser Ser Gly Ser Ser Lys Thr Lys Leu Lys Ile
2792 11155 11160 11165
2793 Pro His Leu Gln Lys Gly Cys Glu Tyr Val Phe Arg Val Arg Ala Glu
E--> 2794 11170 11175 11180 1
2795 Asn Lys Ile Gly Val Gly Pro Pro Leu Asp Ser Thr Pro Thr Val Ala
E--> 2796 1185 11190 11195 11200

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

2797 Lys His Lys Phe Ser Pro Pro Ser Pro Pro Gly Lys Pro Val Val Thr
 2798 11205 11210 11215
 2799 Asp Ile Thr Glu Asn Ala Ala Thr Val Ser Trp Thr Leu Pro Lys Ser
 2800 11220 11225 11230
 2801 Asp Gly Gly Ser Pro Ile Thr Gly Tyr Tyr Met Glu Arg Arg Glu Val
 2802 11235 11240 11245
 2803 Thr Gly Lys Trp Val Arg Val Asn Lys Thr Pro Ile Ala Asp Leu Lys
 E--> 2804 11250 11255 11260 1
 2805 Phe Arg Val Thr Gly Leu Tyr Glu Gly Asn Thr Tyr Glu Phe Arg Val
 E--> 2806 1265 11270 11275 11280
 2807 Phe Ala Glu Asn Leu Ala Gly Leu Ser Lys Pro Ser Pro Ser Ser Asp
 2808 11285 11290 11295
 2809 Pro Ile Lys Ala Cys Arg Pro Ile Lys Pro Pro Gly Pro Pro Ile Asn
 2810 11300 11305 11310
 2811 Pro Lys Leu Lys Asp Lys Ser Arg Glu Thr Ala Asp Leu Val Trp Thr
 2812 11315 11320 11325
 2813 Lys Pro Leu Ser Asp Gly Gly Ser Pro Ile Leu Gly Tyr Val Val Glu
 E--> 2814 11330 11335 11340 1
 2815 Cys Gin Lys Pro Gly Thr Ala Gin Trp Asn Arg Ile Asn Lys Asp Glu
 E--> 2816 1345 11350 11355 11360
 2817 Leu Ile Arg Glu Cys Ala Phe Arg Val Pro Gly Leu Ile Glu Gly Asn
 2818 11365 11370 11375
 2819 Glu Tyr Arg Phe Arg Ile Lys Ala Ala Asn Ile Val Gly Glu Gly Glu
 2820 11380 11385 11390
 2821 Pro Arg Glu Leu Ala Glu Ser Val Ile Ala Lys Asp Ile Leu His Pro
 2822 11395 11400 11405
 2823 Pro Glu Val Glu Leu Asp Val Thr Cys Arg Asp Val Ile Thr Val Arg
 E--> 2824 11410 11415 11420 1
 2825 Val Gly Gln Thr Ile Arg Ile Leu Ala Arg Val Lys Gly Arg Pro Glu
 E--> 2826 1425 11430 11435 11440
 2827 Pro Asp Ile Thr Trp Thr Lys Glu Gly Lys Val Leu Val Arg Glu Lys
 2828 11445 11450 11455
 2829 Arg Val Asp Leu Ile Gin Asp Leu Pro Arg Val Glu Leu Gln Ile Lys
 2830 11460 11465 11470
 2831 Glu Ala Val Arg Ala Asp His Gly Lys Tyr Ile Ile Ser Ala Lys Asn
 2832 11475 11480 11485
 2833 Ser Ser Gly His Ala Gln Gly Ser Ala Ile Val Asn Val Leu Asp Arg
 E--> 2834 11490 11495 11500 1
 2835 Pro Gly Pro Cys Gln Asn Leu Lys Val Thr Asn Val Thr Lys Glu Asn
 E--> 2836 1505 11510 11515 11520
 2837 Cys Thr Ile Ser Trp Glu Asn Pro Leu Asp Asn Gly Ser Glu Ile
 2838 11525 11530 11535
 2839 Thr Asn Phe Ile Val Glu Tyr Arg Lys Pro Asn Gln Lys Gly Trp Ser
 2840 11540 11545 11550
 2841 Ile Val Ala Ser Asp Val Thr Lys Arg Leu Ile Lys Ala Asn Leu Leu
 2842 11555 11560 11565
 2843 Ala Asn Asn Glu Tyr Tyr Phe Arg Val Cys Ala Glu Asn Lys Val Gly
 E--> 2844 11570 11575 11580 1
 2845 Val Gly Pro Thr Ile Glu Thr Lys Thr Pro Ile Leu Ala Ile Asn Pro

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

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E--> 2846 1585          11590          11595          11600
2847 Ile Asp Arg Pro Gly Glu Pro Glu Asn Leu His Ile Ala Asp Lys Gly
2848          11605          11610          11615
2849 Lys Thr Phe Val Tyr Leu Lys Trp Arg Arg Pro Asp Tyr Asp Gly Gly
2850          11620          11625          11630
2851 Ser Pro Asn Leu Ser Tyr His Val Glu Arg Arg Leu Lys Gly Ser Asp
2852          11635          11640          11645
2853 Asp Trp Glu Arg Val His Lys Gly Ser Ile Lys Glu Thr His Tyr Met
E--> 2854          11650          11655          11660          1
2855 Val Asp Arg Cys Val Glu Asn Gln Ile Tyr Glu Phe Arg Val Gln Thr
E--> 2856 1665          11670          11675          11680
2857 Lys Asn Glu Gly Glu Ser Asp Trp Val Lys Thr Glu Glu Val Val
2858          11685          11690          11695
2859 Val Lys Glu Asp Leu Gln Lys Pro Val Leu Asp Leu Lys Leu Ser Gly
2860          11700          11705          11710
2861 Val Leu Thr Val Lys Ala Gly Asp Thr Ile Arg Leu Glu Ala Gly Val
2862          11715          11720          11725
2863 Arg Gly Lys Pro Phe Pro Glu Val Ala Trp Thr Lys Asp Lys Asp Ala
E--> 2864          11730          11735          11740          1
2865 Thr Asp Leu Thr Arg Ser Pro Arg Val Lys Ile Asp Thr Arg Ala Asp
E--> 2866 1745          11750          11755          11760
2867 Ser Ser Lys Phe Ser Leu Thr Lys Ala Lys Arg Ser Asp Gly Gly Lys
2868          11765          11770          11775
2869 Tyr Val Val Thr Ala Thr Asn Thr Ala Gly Ser Phe Val Ala Tyr Ala
2870          11780          11785          11790
2871 Thr Val Asn Val Leu Asp Lys Pro Gly Pro Val Arg Asn Leu Lys Ile
2872          11795          11800          11805
2873 Val Asp Val Ser Ser Asp Arg Cys Thr Val Cys Trp Asp Pro Pro Glu
E--> 2874          11810          11815          11820          1
2875 Asp Asp Gly Gly Cys Glu Ile Gln Asn Tyr Ile Leu Glu Lys Cys Glu
E--> 2876 1825          11830          11835          11840
2877 Thr Lys Arg Met Val Trp Ser Thr Tyr Ser Ala Thr Val Leu Thr Pro
2878          11845          11850          11855
2879 Gly Thr Thr Val Thr Arg Leu Ile Glu Gly Asn Glu Tyr Ile Phe Arg
2880          11860          11865          11870
2881 Val Arg Ala Glu Asn Lys Ile Gly Thr Gly Pro Pro Thr Glu Ser Lys
2882          11875          11880          11885
2883 Pro Val Ile Ala Lys Thr Lys Tyr Asp Lys Pro Gly Arg Pro Asp Pro
E--> 2884          11890          11895          11900          1
2885 Pro Glu Val Thr Lys Val Ser Lys Glu Glu Met Thr Val Val Trp Asn
E--> 2886 1905          11910          11915          11920
2887 Pro Pro Glu Tyr Asp Gly Gly Lys Ser Ile Thr Gly Tyr Phe Leu Glu
2888          11925          11930          11935
2889 Lys Lys Glu Lys His Ser Thr Arg Trp Val Pro Val Asn Lys Ser Ala
2890          11940          11945          11950
2891 Ile Pro Glu Arg Arg Met Lys Val Gln Asn Leu Leu Pro Asp His Glu
2892          11955          11960          11965
2893 Tyr Glu Phe Arg Val Lys Ala Glu Asn Glu Ile Gly Ile Gly Glu Pro
E--> 2894          11970          11975          11980          1

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RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\1759508.raw

2895 Ser Leu Pro Ser Arg Pro Val Val Ala Lys Asp Pro Ile Glu Pro Pro
 E--> 2896 1985 11990 11995 12000
 2897 Gly Pro Pro Thr Asn Phe Arg Val Val Asp Thr Thr Lys His Ser Ile
 2898 12005 12010 12015
 2899 Thr Leu Gly Trp Gly Lys Pro Val Tyr Asp Gly Gly Ala Pro Ile Ile
 2900 12020 12025 12030
 2901 Gly Tyr Val Val Glu Met Arg Pro Lys Ile Ala Asp Ala Ser Pro Asp
 2902 12035 12040 12045
 2903 Glu Gly Trp Lys Arg Cys Asn Ala Ala Ala Gln Leu Val Arg Lys Glu
 E--> 2904 12050 12055 12060 1
 2905 Phe Thr Val Thr Ser Leu Asp Glu Asn Gln Glu Tyr Glu Phe Arg Val
 E--> 2906 2065 12070 12075 12080
 2907 Cys Ala Gln Asn Gln Val Gly Ile Gly Arg Pro Ala Glu Leu Lys Glu
 2908 12085 12090 12095
 2909 Ala Ile Lys Pro Lys Glu Ile Leu Glu Pro Pro Glu Ile Asp Leu Asp
 2910 12100 12105 12110
 2911 Ala Ser Met Arg Lys Leu Val Ile Val Arg Ala Gly Cys Pro Ile Arg
 2912 12115 12120 12125
 2913 Leu Phe Ala Ile Val Arg Gly Arg Pro Ala Pro Lys Val Thr Trp Arg
 E--> 2914 12130 12135 12140 1
 2915 Lys Val Gly Ile Asp Asn Val Val Arg Lys Gly Gln Val Asp Leu Val
 E--> 2916 2145 12150 12155 12160
 2917 Asp Thr Met Ala Phe Leu Val Ile Pro Asn Ser Thr Arg Asp Asp Ser
 2918 12165 12170 12175
 2919 Gly Lys Tyr Ser Leu Thr Leu Val Asn Pro Ala Gly Glu Lys Ala Val
 2920 12180 12185 12190
 2921 Phe Val Asn Val Arg Val Leu Asp Thr Pro Gly Pro Val Ser Asp Leu
 2922 12195 12200 12205
 2923 Lys Val Ser Asp Val Thr Lys Thr Ser Cys His Val Ser Trp Ala Pro
 E--> 2924 12210 12215 12220 1
 2925 Pro Glu Asn Asp Gly Gly Ser Gln Val Thr His Tyr Ile Val Glu Lys
 E--> 2926 2225 12230 12235 12240
 2927 Arg Glu Ala Asp Arg Lys Thr Trp Ser Thr Val Thr Pro Glu Val Lys
 2928 12245 12250 12255
 2929 Lys Thr Ser Phe His Val Thr Asn Leu Val Pro Gly Asn Glu Tyr Tyr
 2930 12260 12265 12270
 2931 Phe Arg Val Thr Ala Val Asn Glu Tyr Gly Pro Gly Val Pro Thr Asp
 2932 12275 12280 12285
 2933 Val Pro Lys Pro Val Leu Ala Ser Asp Pro Leu Ser Glu Pro Asp Pro
 E--> 2934 12290 12295 12300 1
 2935 Pro Arg Lys Leu Glu Ala Thr Glu Met Thr Lys Asn Ser Ala Thr Leu
 E--> 2936 2305 12310 12315 12320
 2937 Ala Trp Leu Pro Pro Leu Arg Asp Gly Gly Ala Lys Ile Asp Gly Tyr
 2938 12325 12330 12335
 2939 Ile Ile Ser Tyr Arg Glu Glu Gln Pro Ala Asp Arg Trp Thr Glu
 2940 12340 12345 12350
 2941 Tyr Ser Val Val Lys Asp Leu Ser Leu Val Val Thr Gly Leu Lys Glu
 2942 12355 12360 12365
 2943 Gly Lys Lys Tyr Lys Phe Arg Val Ala Ala Arg Asn Ala Val Gly Val

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

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E--> 2944 12370 12375 12380 1
2945 Ser Leu Pro Arg Glu Ala Glu Gly Val Tyr Glu Ala Lys Glu Gln Leu
E--> 2946 2385 12390 12395 12400
2947 Leu Pro Pro Lys Ile Leu Met Pro Glu Gln Ile Thr Ile Lys Ala Gly
2948 12405 12410 12415
2949 Lys Lys Leu Arg Ile Glu Ala His Val Tyr Gly Lys Pro His Pro Thr
2950 12420 12425 12430
2951 Cys Lys Trp Lys Lys Gly Glu Asp Glu Val Val Thr Ser Ser His Leu
2952 12435 12440 12445
2953 Ala Val His Lys Ala Asp Ser Ser Ser Ile Leu Ile Ile Lys Asp Val
E--> 2954 12450 12455 12460 1
2955 Thr Arg Lys Asp Ser Glv Tyr Tyr Ser Leu Thr Ala Glu Asn Ser Ser
E--> 2956 2465 12470 12475 12480
2957 Gly Thr Asp Thr Gln Lys Ile Lys Val Val Val Met Asp Ala Pro Gly
2958 12485 12490 12495
2959 Pro Pro Gln Pro Pro Phe Asp Ile Ser Asp Ile Asp Ala Asp Ala Cys
2960 12500 12505 12510
2961 Ser Leu Ser Trp His Ile Pro Leu Glu Asp Gly Gly Ser Asn Ile Thr
2962 12515 12520 12525
2963 Asn Tyr Ile Val Glu Lys Cys Asp Val Ser Arg Gly Asp Trp Val Thr
E--> 2964 12530 12535 12540 1
2965 Ala Leu Ala Ser Val Thr Lys Thr Ser Cys Arg Val Gly Lys Leu Ile
E--> 2966 2545 12550 12555 12560
2967 Pro Gly Glu Glu Tyr Ile Phe Arg Val Arg Ala Glu Asn Arg Phe Gly
2968 12565 12570 12575
2969 Ile Ser Glu Pro Leu Thr Ser Pro Lys Met Val Ala Gln Phe Pro Phe
2970 12580 12585 12590
2971 Gly Val Pro Ser Glu Pro Lys Asn Ala Arg Val Thr Lys Val Asn Lys
2972 12595 12600 12605
2973 Asp Cys Ile Phe Val Ala Trp Asp Arg Pro Asp Ser Asp Gly Gly Ser
E--> 2974 12610 12615 12620 1
2975 Pro Ile Ile Gly Tyr Leu Ile Glu Arg Lys Glu Arg Asn Ser Leu Leu
E--> 2976 2625 12630 12635 12640
2977 Trp Val Lys Ala Asn Asp Thr Leu Val Arg Ser Thr Glu Tyr Pro Cys
2978 12645 12650 12655
2979 Ala Gly Leu Val Glu Gly Leu Glu Tyr Ser Phe Arg Ile Tyr Ala Leu
2980 12660 12665 12670
2981 Asn Lys Ala Gly Ser Ser Pro Pro Ser Lys Pro Thr Glu Tyr Val Thr
2982 12675 12680 12685
2983 Ala Arg Met Pro Val Asp Pro Pro Gly Lys Pro Glu Val Ile Asp Val
E--> 2984 12690 12695 12700 1
2985 Thr Lys Ser Thr Val Ser Leu Ile Trp Ala Arg Pro Lys His Asp Gly
E--> 2986 2705 12710 12715 12720
2987 Gly Ser Lys Ile Ile Gly Tyr Phe Val Glu Ala Cys Lys Leu Pro Gly
2988 12725 12730 12735
2989 Asp Lys Trp Val Arg Cys Asn Thr Ala Pro His Gln Ile Pro Gln Glu
2990 12740 12745 12750
2991 Glu Tyr Thr Ala Thr Gly Leu Glu Glu Lys Ala Gln Tyr Gln Phe Arg
2992 12755 12760 12765

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RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

2993 Ala Ile Ala Arg Thr Ala Val Asn Ile Ser Pro Pro Ser Glu Pro Ser
 E--> 2994 12770 12775 12780 1
 2995 Asp Pro Val Thr Ile Leu Ala Glu Asn Val Pro Pro Arg Ile Asp Leu
 E--> 2996 2785 12790 12795 12800
 2997 Ser Val Ala Met Lys Ser Leu Leu Thr Val Lys Ala Gly Thr Asn Val
 2998 , 12805 12810 12815
 2999 Cys Leu Asp Ala Thr Val Phe Gly Lys Pro Met Pro Thr Val Ser Trp
 3000 12820 12825 12830
 3001 Lys Lys Asp Gly Thr Leu Leu Lys Pro Ala Glu Gly Ile Lys Met Ala
 3002 12835 12840 12845
 3003 Met Gln Arg Asn Leu Cys Thr Leu Glu Leu Phe Ser Val Asn Arg Lys
 E--> 3004 12850 12855 12860 1
 3005 Asp Ser Gly Asp Tyr Thr Ile Thr Ala Glu Asn Ser Ser Gly Ser Lys
 E--> 3006 2865 12870 12875 12880
 3007 Ser Ala Thr Ile Lys Leu Lys Val Leu Asp Lys Pro Gly Pro Pro Ala
 3008 12885 12890 12895
 3009 Ser Val Lys Ile Asn Lys Met Tyr Ser Asp Arg Ala Met Leu Ser Trp
 3010 12900 12905 12910
 3011 Glu Pro Pro Leu Glu Asp Gly Gly Ser Glu Ile Thr Asn Tyr Ile Val
 3012 12915 12920 12925
 3013 Asp Lys Arg Glu Thr Ser Arg Pro Asn Trp Ala Gln Val Ser Ala Thr
 E--> 3014 12930 12935 12940 1
 3015 Val Pro Ile Thr Ser Cys Ser Val Glu Lys Leu Ile Glu Gly His Gln
 E--> 3016 2945 12950 12955 12960
 3017 Tyr Gln Phe Arg Ile Cys Ala Glu Asn Lys Tyr Gly Val Gly Asp Pro
 3018 12965 12970 12975
 3019 Val Phe Thr Glu Pro Ala Ile Ala Iys Asn Pro Tyr Asp Pro Gly
 3020 12980 12985 12990
 3021 Arg Cys Asp Pro Pro Val Ile Ser Asn Ile Thr Lys Asp His Met Thr
 3022 12995 13000 13005
 3023 Val Ser Trp Lys Pro Pro Ala Asp Asp Gly Gly Ser Pro Ile Thr Gly
 E--> 3024 13010 13015 13020 1
 3025 Tyr Leu Leu Glu Lys Arg Glu Thr Gln Ala Val Asn Trp Thr Lys Val
 E--> 3026 3025 13030 13035 13040
 3027 Asn Arg Lys Pro Ile Ile Glu Arg Thr Leu Lys Ala Thr Gly Leu Gln
 3028 13045 13050 13055
 3029 Glu Gly Thr Glu Tyr Glu Phe Arg Val Thr Ala Ile Asn Lys Ala Gly
 3030 13060 13065 13070
 3031 Pro Gly Lys Pro Ser Asp Ala Ser Lys Ala Ala Tyr Ala Arg Asp Pro
 3032 13075 13080 13085
 3033 Gln Tyr Pro Pro Ala Pro Ala Phe Pro Lys Val Tyr Asp Thr Thr
 E--> 3034 13090 13095 13100 1
 3035 Arg Ser Ser Val Ser Leu Ser Trp Gly Lys Pro Ala Tyr Asp Gly Gly
 E--> 3036 3105 13110 13115 13120
 3037 Ser Pro Ile Ile Gly Tyr Leu Val Glu Val Lys Arg Ala Asp Ser Asp
 3038 13125 13130 13135
 3039 Asn Trp Val Arg Cys Asn Leu Pro Gln Asn Leu Gln Lys Thr Arg Phe
 3040 13140 13145 13150
 3041 Glu Val Thr Gly Leu Met Glu Asp Thr Gln Tyr Gln Phe Arg Val Tyr

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\1759508.raw

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3042      13155      13160      13165
3043 Ala Val Asn Lys Ile Gly Tyr Ser Asp Pro Ser Asp Val Pro Asp Lys
E--> 3044 13170      13175      13180      1
3045 His Tyr Pro Lys Asp Ile Leu Ile Pro Pro Glu Gly Glu His Asp Ala
E--> 3046 3185      13190      13195      13200
3047 Asp Leu Arg Lys Thr Leu Ile Leu Arg Ala Gly Val Thr Met Arg Leu
3048      13205      13210      13215
3049 Tyr Val Pro Val Lys Gly Arg Pro Pro Pro Lys Ile Thr Trp Ser Lys
3050      13220      13225      13230
3051 Pro Asn Val Asn Leu Arg Asp Arg Ile Gly Leu Asp Ile Lys Ser Thr
3052      13235      13240      13245
3053 Asp Phe Asp Thr Phe Leu Arg Cys Glu Asn Val Lys Tyr Asp Ala
E--> 3054 13250      13255      13260      1
3055 Gly Lys Tyr Ile Leu Thr Leu Glu Asn Ser Cys Gly Lys Lys Glu Tyr
E--> 3056 3265      13270      13275      13280
3057 Thr Ile Val Val Lys Val Leu Asp Thr Pro Gly Pro Pro Ile Asn Val
3058      13285      13290      13295
3059 Thr Val Lys Glu Ile Ser Lys Asp Ser Ala Tyr Val Thr Trp Glu Pro
3060      13300      13305      13310
3061 Pro Ile Ile Asp Gly Gly Ser Pro Ile Ile Asn Tyr Val Val Gln Lys
3062      13315      13320      13325
3063 Arg Asp Ala Glu Arg Lys Ser Trp Ser Thr Val Thr Thr Glu Cys Ser
E--> 3064 13330      13335      13340      1
3065 Lys Thr Ser Phe Arg Val Pro Asn Leu Glu Gly Lys Ser Tyr Phe
E--> 3066 3345      13350      13355      13360
3067 Phe Arg Val Phe Ala Glu Asn Glu Tyr Gly Ile Gly Asp Pro Gly Glu
3068      13365      13370      13375
3069 Thr Arg Asp Ala Val Lys Ala Ser Gln Thr Pro Gly Pro Val Val Asp
3070      13380      13385      13390
3071 Leu Lys Val Arg Ser Val Ser Lys Ser Ser Cys Ser Ile Gly Trp Lys
3072      13395      13400      13405
3073 Lys Pro His Ser Asp Gly Gly Ser Arg Ile Ile Gly Tyr Val Val Asp
E--> 3074 13410      13415      13420      1
3075 Phe Leu Thr Glu Glu Asn Lys Trp Gln Arg Val Met Lys Ser Leu Ser
E--> 3076 3425      13430      13435      13440
3077 Leu Gln Tyr Ser Ala Lys Asp Leu Thr Glu Gly Lys Glu Tyr Thr Phe
3078      13445      13450      13455
3079 Arg Val Ser Ala Glu Asn Glu Asn Gly Glu Gly Thr Pro Ser Glu Ile
3080      13460      13465      13470
3081 Thr Val Val Ala Arg Asp Asp Val Val Ala Pro Asp Leu Asp Leu Lys
3082      13475      13480      13485
3083 GLY Leu Pro Asp Leu Cys Tyr Leu Ala Lys Glu Asn Ser Asn Phe Arg
E--> 3084 13490      13495      13500      1
3085 Leu Lys Ile Pro Ile Lys Gly Lys Pro Ala Pro Ser Val Ser Trp Lys
E--> 3086 3505      13510      13515      13520
3087 Lys Gly Glu Asp Pro Leu Ala Thr Asp Thr Arg Val Ser Val Glu Ser
3088      13525      13530      13535
3089 Ser Ala Val Asn Thr Thr Leu Ile Val Tyr Asp Cys Gln Lys Ser Asp
3090      13540      13545      13550

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

3091 Ala Gly Lys Tyr Thr Ile Thr Leu Lys Asn Val Ala Gly Thr Lys Glu
3092 13555 13560 13565
3093 Gly Thr Ile Ser Ile Lys Val Val Gly Lys Pro Gly Ile Pro Thr Gly
E--> 3094 13570 13575 13580 1
3095 Pro Ile Lys Phe Asp Glu Val Thr Ala Glu Ala Met Thr Leu Lys Trp
E--> 3096 3585 13590 13595 13600
3097 Ala Pro Pro Lys Asp Asp Gly Ser Glu Ile Thr Asn Tyr Ile Leu
3098 13605 13610 13615
3099 Glu Lys Arg Asp Ser Val Asn Asn Lys Trp Val Thr Cys Ala Ser Ala
3100 13620 13625 13630
3101 Val Gln Lys Thr Thr Phe Arg Val Thr Arg Leu His Glu Gly Met Glu
3102 13635 13640 13645
3103 Tyr Thr Phe Arg Val Ser Ala Asn Lys Tyr Gly Val Gly Glu Gly
E--> 3104 13650 13655 13660 1
3105 Leu Lys Ser Glu Pro Ile Val Ala Arg His Pro Phe Asp Val Pro Asp
E--> 3106 3665 13670 13675 13680
3107 Ala Pro Pro Pro Asn Ile Val Asp Val Arg His Asp Ser Val Ser
3108 13685 13690 13695
3109 Leu Thr Trp Thr Asp Pro Lys Lys Thr Gly Gly Ser Pro Ile Thr Gly
3110 13700 13705 13710
3111 Tyr His Leu Glu Phe Lys Glu Arg Asn Ser Leu Leu Trp Lys Arg Ala
3112 13715 13720 13725
3113 Asn Lys Thr Pro Ile Arg Met Arg Asp Phe Lys Val Thr Gly Leu Thr
E--> 3114 13730 13735 13740 1
3115 Glu Gly Leu Glu Tyr Glu Phe Arg Val Met Ala Ile Asn Leu Ala Gly
E--> 3116 3745 13750 13755 13760
3117 Val Gly Lys Pro Ser Leu Pro Ser Glu Pro Val Val Ala Leu Asp Pro
3118 13765 13770 13775
3119 Ile Asp Pro Pro Gly Lys Pro Glu Val Ile Asn Ile Thr Arg Asn Ser
3120 13780 13785 13790
3121 Val Thr Leu Ile Trp Thr Glu Pro Lys Tyr Asp Gly His Lys Leu
3122 13795 13800 13805
3123 Thr Gly Tyr Ile Val Glu Lys Arg Asp Leu Pro Ser Lys Ser Trp Met
E--> 3124 13810 13815 13820 1
3125 Lys Ala Asn His Val Asn Val Pro Glu Cys Ala Ile Thr Val Thr Asp
E--> 3126 3825 13830 13835 13840
3127 Leu Val Glu Gly Lys Tyr Glu Phe Arg Ile Arg Ala Lys Asn Thr
3128 13845 13850 13855
3129 Ala Gly Ala Ile Ser Ala Pro Ser Glu Ser Thr Glu Thr Ile Ile Cys
3130 13860 13865 13870
3131 Lys Asp Glu Tyr Glu Ala Pro Thr Ile Val Leu Asp Pro Thr Ile Lys
3132 13875 13880 13885
3133 Asp Gly Leu Thr Ile Lys Ala Gly Asp Thr Ile Val Leu Asn Ala Ile
E--> 3134 13890 13895 13900 1
3135 Ser Ile Leu Gly Lys Pro Leu Pro Lys Ser Ser Trp Ser Lys Ala Gly
E--> 3136 3905 13910 13915 13920
3137 Lys Asp Ile Arg Pro Ser Asp Ile Thr Gln Ile Thr Ser Thr Pro Thr
3138 13925 13930 13935
3139 Ser Ser Met Leu Thr Ile Lys Tyr Ala Thr Arg Lys Asp Ala Gly Glu

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

3140	13940	13945	13950
3141	Tyr Thr Ile Thr Ala Thr Asn Pro Phe Gly Thr Lys Val Glu His Val		
3142	13955	13960	13965
3143	Lys Val Thr Val Leu Asp Val Pro Gly Pro Pro Gly Pro Val Glu Ile		
E--> 3144	13970	13975	13980
3145	Ser Asn Val Ser Ala Glu Lys Ala Thr Leu Thr Trp Thr Pro Pro Leu		
E--> 3146	3985	13990	13995
			14000
3147	Glu Asp Gly Gly Ser Pro Ile Lys Ser Tyr Ile Leu Glu Lys Arg Glu		
3148	14005	14010	14015
3149	Thr Ser Arg Leu Leu Trp Thr Val Val Ser Glu Asp Ile Gln Ser Cys		
3150	14020	14025	14030
3151	Arg His Val Ala Thr Lys Leu Ile Gln Gly Asn Glu Tyr Ile Phe Arg		
3152	14035	14040	14045
3153	Val Ser Ala Val Asn His Tyr Gly Lys Gly Glu Pro Val Gln Ser Glu		
E--> 3154	14050	14055	14060
3155	Pro Val Lys Met Val Asp Arg Phe Gly Pro Pro Gly Pro Pro Glu Lys		
E--> 3156	4065	14070	14075
			14080
3157	Pro Glu Val Ser Asn Val Thr Lys Asn Thr Ala Thr Val Ser Trp Lys		
3158	14085	14090	14095
3159	Arg Pro Val Asp Asp Gly Gly Ser Glu Ile Thr Gly Tyr His Val Glu		
3160	14100	14105	14110
3161	Arg Arg Glu Lys Lys Ser Leu Arg Trp Val Arg Ala Ile Lys Thr Pro		
3162	14115	14120	14125
3163	Val Ser Asp Leu Arg Cys Lys Val Thr Gly Leu Gln Glu Gly Ser Thr		
E--> 3164	14130	14135	14140
3165	Tyr Glu Phe Arg Val Ser Ala Glu Asn Arg Ala Gly Ile Gly Pro Pro		
E--> 3166	4145	14150	14155
			14160
3167	Ser Glu Ala Ser Asp Ser Val Leu Met Lys Asp Ala Ala Tyr Pro Pro		
3168	14165	14170	14175
3169	Gly Pro Pro Ser Asn Pro His Val Thr Asp Thr Thr Lys Lys Ser Ala		
3170	14180	14185	14190
3171	Ser Leu Ala Trp Gly Lys Pro His Tyr Asp Gly Gly Leu Glu Ile Thr		
3172	14195	14200	14205
3173	Gly Tyr Val Val Glu His Gln Lys Val Gly Asp Glu Ala Trp Ile Lys		
E--> 3174	14210	14215	14220
3175	Asp Thr Thr Gly Thr Ala Leu Arg Ile Thr Gln Phe Val Val Pro Asp		
E--> 3176	4225	14230	14235
			14240
3177	Leu Gln Thr Lys Glu Lys Tyr Asn Phe Arg Ile Ser Ala Ile Asn Asp		
3178	14245	14250	14255
3179	Ala Gly Val Gly Pro Ala Val Ile Pro Asp Val Glu Ile Val Glu		
3180	14260	14265	14270
3181	Arg Glu Met ^W Ala Pro Asp Phe Glu Leu Asp Ala Glu Leu Arg Arg Thr		
3182	14275	14280	14285
3183	Leu Val Val Arg Ala Gly Leu Ser Ile Arg Ile Phe Val Pro Ile Lys		
E--> 3184	14290	14295	14300
3185	Gly Arg Pro Ala Pro Glu Val Thr Trp Thr Lys Asp Asn Ile Asn Leu		
E--> 3186	4305	14310	14315
			14320
3187	Lys Asn Arg Ala Asn Ile Glu Asn Thr Glu Ser Phe Thr Leu Leu Ile		
3188	14325	14330	14335

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

3189 Ile Pro Glu Cys Asn Arg Tyr Asp Thr Gly Lys Phe Val Met Thr Ile
3190 14340 14345 14350
3191 Glu Asn Pro Ala Gly Lys Lys Ser Gly Phe Val Asn Val Arg Val Leu
3192 14355 14360 14365
3193 Asp Thr Pro Gly Pro Val Leu Asn Leu Arg Pro Thr Asp Ile Thr Lys
E--> 3194 14370 14375 14380 1
3195 Asp Ser Val Thr Leu His Trp Asp Leu Pro Leu Ile Asp Gly Gly Ser
E--> 3196 4385 14390 14395 14400
3197 Arg Ile Thr Asn Tyr Ile Val Glu Lys Arg Glu Ala Thr Arg Lys Ser
3198 14405 14410 14415
3199 Tyr Ser Thr Ala Thr Thr Lys Cys His Lys Cys Thr Tyr Lys Val Thr
3200 14420 14425 14430
3201 Gly Leu Ser Glu Gly Cys Glu Tyr Phe Phe Arg Val Met Ala Glu Asn
3202 14435 14440 14445
3203 Glu Tyr Gly Ile Gly Glu Pro Thr Glu Thr Thr Glu Pro Val Lys Ala
E--> 3204 14450 14455 14460 1
3205 Ser Glu Ala Pro Ser Pro Pro Asp Ser Leu Asn Ile Met Asp Ile Thr
E--> 3206 4465 14470 14475 14480
3207 Lys Ser Thr Val Ser Leu Ala Trp Pro Lys Pro Lys His Asp Gly Gly
3208 14485 14490 14495
3209 Ser Lys Ile Thr Gly Tyr Val Ile Glu Ala Gln Arg Lys Gly Ser Asp
3210 14500 14505 14510
3211 Gln Trp Thr His Ile Thr Thr Lys Gly Leu Glu Cys Val Val Arg
3212 14515 14520 14525
3213 Asn Leu Thr Glu Gly Glu Tyr Thr Phe Gln Val Met Ala Val Asn
E--> 3214 14530 14535 14540 1
3215 Ser Ala Gly Arg Ser Ala Pro Arg Glu Ser Arg Pro Val Ile Val Lys
E--> 3216 4545 14550 14555 14560
3217 Glu Gln Thr Met Leu Pro Glu Leu Asp Leu Arg Gly Ile Tyr Gln Lys
3218 14565 14570 14575
3219 Leu Val Ile Ala Lys Ala Gly Asp Asn Ile Lys Val Glu Ile Pro Val
3220 14580 14585 14590
3221 Leu Gly Arg Pro Lys Pro Thr Val Thr Trp Lys Lys Gly Asp Gln Ile
3222 14595 14600 14605
3223 Leu Lys Glu Thr Gln Arg Val Asn Phe Glu Thr Thr Ala Thr Ser Thr
E--> 3224 14610 14615 14620 1
3225 Ile Leu Asn Ile Asn Glu Cys Val Arg Ser Asp Ser Gly Pro Tyr Pro
E--> 3226 4625 14630 14635 14640
3227 Leu Thr Ala Arg Asn Ile Val Gly Glu Val Gly Asp Val Ile Thr Ile
3228 14645 14650 14655
3229 Gln Val His Asp Ile Pro Gly Pro Pro Thr Gly Pro Ile Lys Phe Asp
3230 14660 14665 14670
3231 Glu Val Ser Ser Asp Phe Val Thr Phe Ser Trp Asp Pro Pro Glu Asn
3232 14675 14680 14685
3233 Asp Gly Gly Val Pro Ile Ser Asn Tyr Val Val Glu Met Arg Gln Thr
E--> 3234 14690 14695 14700 1
3235 Asp Ser Thr Thr Trp Val Glu Leu Ala Thr Thr Val Ile Arg Thr Thr
E--> 3236 4705 14710 14715 14720
3237 Tyr Lys Ala Thr Arg Leu Thr Thr Gly Leu Glu Tyr Gln Phe Arg Val

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

3238	14725	14730	14735
3239	Lys Ala Gln Asn Arg Tyr Gly Val Gly Pro Gly Ile Thr Ser Ala Trp		
3240	14740	14745	14750
3241	Ile Val Ala Asn Tyr Pro Phe Lys Val Pro Gly Pro Pro Gly Thr Pro		
3242	14755	14760	14765
3243	Gln Val Thr Ala Val Thr Lys Asp Ser Met Thr Ile Ser Trp His Glu		
E--> 3244	14770	14775	14780
			1
3245	Pro Leu Ser Asp Gly Gly Ser Pro Ile Leu Gly Tyr His Val Glu Arg		
E--> 3246	4785	14790	14795
			14800
3247	Lys Glu Arg Asn Gly Ile Leu Trp Gln Thr Val Ser Lys Ala Leu Val		
3248	14805	14810	14815
3249	Pro Gly Asn Ile Phe Lys Ser Ser Gly Leu Thr Asp Gly Ile Ala Tyr		
3250	14820	14825	14830
3251	Glu Phe Arg Val Ile Ala Glu Asn Met Ala Gly Lys Ser Lys Pro Ser		
3252	14835	14840	14845
3253	Lys Pro Ser Glu Pro Met Leu Ala Leu Asp Pro Ile Asp Pro Pro Gly		
E--> 3254	14850	14855	14860
			1
3255	Lys Pro Val Pro Leu Asn Ile Thr Arg His Thr Val Thr Leu Lys Trp		
E--> 3256	4865	14870	14875
			14880
3257	Ala Lys Pro Glu Tyr Thr Gly Phe Lys Ile Thr Ser Tyr Ile Val		
3258	14885	14890	14895
3259	Glu Lys Arg Asp Leu Pro Asn Gly Arg Trp Leu Lys Ala Asn Phe Ser		
3260	14900	14905	14910
3261	Asn Ile Leu Glu Asn Glu Phe Thr Val Ser Gly Leu Thr Glu Asp Ala		
3262	14915	14920	14925
3263	Ala Tyr Glu Phe Arg Val Ile Ala Lys Asn Ala Ala Gly Ala Ile Ser		
E--> 3264	14930	14935	14940
			1
3265	Pro Pro Ser Glu Pro Ser Asp Ala Ile Thr Cys Arg Asp Asp Val Glu		
E--> 3266	4945	14950	14955
			14960
3267	Ala Pro Lys Ile Lys Val Asp Val Lys Phe Lys Asp Thr Val Ile Leu		
3268	14965	14970	14975
3269	Lys Ala Gly Glu Ala Phe Arg Leu Glu Ala Asp Val Ser Gly Arg Pro		
3270	14980	14985	14990
3271	Pro Pro Thr Met Glu Trp Ser Lys Asp Gly Lys Glu Leu Glu Gly Thr		
3272	14995	15000	15005
3273	Ala Lys Leu Glu Ile Lys Ile Ala Asp Phe Ser Thr Asn Leu Val Asn		
E--> 3274	15010	15015	15020
			1
3275	Lys Asp Ser Thr Arg Arg Asp Ser Gly Ala Tyr Thr Leu Thr Ala Thr		
E--> 3276	5025	15030	15035
			15040
3277	Asn Pro Gly Gly Phe Ala Lys His Ile Phe Asn Val Lys Val Leu Asp		
3278	15045	15050	15055
3279	Arg Pro Gly Pro Pro Glu Gly Pro Leu Ala Val Thr Glu Val Thr Ser		
3280	15060	15065	15070
3281	Glu Lys Cys Val Leu Ser Trp Phe Pro Pro Leu Asp Asp Gly Gly Ala		
3282	15075	15080	15085
3283	Lys Ile Asp His Tyr Ile Val Gln Lys Arg Glu Thr Ser Arg Leu Ala		
E--> 3284	15090	15095	15100
			1
3285	Trp Thr Asn Val Ala Ser Gln Val Val Thr Lys Leu Lys Val Thr		
E--> 3286	5105	15110	15115
			15120

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

3287 Lys Leu Leu Lys Gly Asn Glu Tyr Ile Phe Arg Val Met Ala Val Asn
 3288 15125 15130 15135
 3289 Lys Tyr Gly Val Gly Glu Pro Leu Glu Ser Glu Pro Val Leu Ala Val
 3290 15140 15145 15150
 3291 Asn Pro Tyr Gly Pro Pro Asp Pro Pro Lys Asn Pro Glu Val Thr Thr
 3292 15155 15160 15165
 3293 Ile Thr Lys Asp Ser Met Val Val Cys Trp Gly His Pro Asp Ser Asp
 E--> 3294 15170 15175 15180 1
 3295 Gly Gly Ser Glu Ile Ile Asn Tyr Ile Val Glu Arg Arg Asp Lys Ala
 E--> 3296 5185 15190 15195 15200
 3297 Gly Gln Arg Trp Ile Lys Cys Asn Lys Lys Thr Leu Thr Asp Leu Arg
 3298 15205 15210 15215
 3299 Tyr Lys Val Ser Gly Leu Thr Glu Gly His Glu Tyr Glu Phe Arg Ile
 3300 15220 15225 15230
 3301 Met Ala Glu Asn Ala Ala Gly Ile Ser Ala Pro Ser Pro Thr Ser Pro
 3302 15235 15240 15245
 3303 Phe Tyr Lys Ala Cys Asp Thr Val Phe Lys Pro Gly Pro Pro Gly Asn
 E--> 3304 15250 15255 15260 1
 3305 Pro Arg Val Leu Asp Thr Ser Arg Ser Ser Ile Ser Ile Ala Trp Asn
 E--> 3306 5265 15270 15275 15280
 3307 Lys Pro Ile Tyr Asp Gly Gly Ser Glu Ile Thr Gly Tyr Met Val Glu
 3308 15285 15290 15295
 3309 Ile Ala Leu Pro Glu Glu Asp Glu Trp Gln Ile Val Thr Pro Pro Ala
 3310 15300 15305 15310
 3311 Gly Leu Lys Ala Thr Ser Tyr Thr Ile Thr Gly Leu Thr Glu Asn Gln
 3312 15315 15320 15325
 3313 Glu Tyr Lys Ile Arg Ile Tyr Ala Met Asn Ser Glu Gly Leu Gly Gln
 E--> 3314 15330 15335 15340 1
 3315 Pro Ala Leu Val Pro Gly Thr Pro Lys Ala Glu Asp Arg Met Leu Pro
 E--> 3316 5345 15350 15355 15360
 3317 Pro Glu Ile Glu Leu Asp Ala Asp Leu Arg Lys Val Val Thr Ile Arg
 3318 15365 15370 15375
 3319 Ala Cys Cys Thr Leu Arg Leu Phe Val Pro Ile Lys Gly Arg Pro Asp
 3320 15380 15385 15390
 3321 Pro Glu Val Lys Trp Ala Arg Asp His Gly Glu Ser Leu Asp Lys Ala
 3322 15395 15400 15405
 3323 Ser Ile Glu Ser Ala Ser Ser Tyr Thr Leu Leu Ile Val Gly Asn Val
 E--> 3324 15410 15415 15420 1
 3325 Asn Arg Phe Asp Ser Gly Lys Tyr Ile Leu Thr Val Glu Asn Ser Ser
 E--> 3326 5425 15430 15435 15440
 3327 Gly Ser Lys Ser Ala Phe Val Asn Val Arg Val Leu Asp Thr Pro Gly
 3328 15445 15450 15455
 3329 Pro Pro Gln Asp Leu Lys Val Lys Glu Val Thr Lys Thr Ser Val Thr
 3330 15460 15465 15470
 3331 Leu Thr Trp Asp Pro Pro Leu Leu Asp Gly Gly Ser Lys Ile Lys Asn
 3332 15475 15480 15485
 3333 Tyr Ile Val Glu Lys Arg Glu Ser Thr Arg Lys Ala Tyr Ser Thr Val
 E--> 3334 15490 15495 15500 1
 3335 Ala Thr Asn Cys His Lys Thr Ser Trp Lys Val Asp Gln Leu Gln Glu

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

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E--> 3336 5505          15510          15515          15520
  3337 Gly Cys Ser Tyr Tyr Phe Arg Val Leu Ala Glu Asn Glu Tyr Gly Ile
  3338          15525          15530          15535
  3339 Gly Leu Pro Ala Glu Thr Ala Ser Val Lys Ala Ser Glu Arg Pro
  3340          15540          15545          15550
  3341 Leu Pro Pro Gly Lys Ile Thr Leu Met Asp Val Thr Arg Asn Ser Val
  3342          15555          15560          15565
  3343 Ser Leu Ser Trp Glu Lys Pro Glu His Asp Gly Gly Ser Arg Ile Leu
E--> 3344 15570          15575          15580          1
  3345 Gly Tyr Ile Val Glu Met Gln Thr Lys Gly Ser Asp Lys Trp Ala Thr
E--> 3346 5585          15590          15595          15600
  3347 Cys Ala Thr Val Lys Val Thr Glu Ala Thr Ile Thr Gly Leu Ile Gln
  3348          15605          15610          15615
  3349 Gly Glu Glu Tyr Ser Phe Arg Val Ser Ala Gln Asn Glu Lys Gly Ile
  3350          15620          15625          15630
  3351 Ser Asp Pro Arg Gln Leu Ser Val Pro Val Ile Ala Lys Asp Leu Val
  3352          15635          15640          15645
  3353 Ile Pro Pro Ala Phe Lys Leu Leu Phe Asn Thr Phe Thr Val Leu Ala
E--> 3354 15650          15655          15660          1
  3355 Gly Glu Asp Leu Lys Val Asp Val Pro Phe Ile Gly Arg Pro Thr Pro
E--> 3356 5665          15670          15675          15680
  3357 Ala Val Thr Trp His Lys Asp Asn Val Pro Leu Lys Gln Thr Thr Arg
  3358          15685          15690          15695
  3359 Val Asn Ala Glu Ser Thr Glu Asn Asn Ser Leu Leu Thr Ile Lys Asp
  3360          15700          15705          15710
  3361 Ala Cys Arg Glu Asp Val Gly His Tyr Val Val Lys Leu Thr Asn Ser
  3362          15715          15720          15725
  3363 Ala Gly Glu Ala Ile Glu Thr Leu Asn Val Ile Val Leu Asp Lys Pro
E--> 3364 15730          15735          15740          1
  3365 Gly Pro Pro Thr Gly Pro Val Lys Met Asp Glu Val Thr Ala Asp Ser
E--> 3366 5745          15750          15755          15760
  3367 Ile Thr Leu Ser Trp Gly Pro Pro Lys Tyr Asp Gly Gly Ser Ser Ile
  3368          15765          15770          15775
  3369 Asn Asn Tyr Ile Val Glu Lys Arg Asp Thr Ser Thr Thr Trp Gln
  3370          15780          15785          15790
  3371 Ile Val Ser Ala Thr Val Ala Arg Thr Thr Ile Lys Ala Cys Arg Leu
  3372          15795          15800          15805
  3373 Lys Thr Gly Cys Glu Tyr Gln Phe Arg Ile Ala Ala Glu Asn Arg Tyr
E--> 3374 15810          15815          15820          1
  3375 Gly Lys Ser Thr Tyr Leu Asn Ser Glu Pro Thr Val Ala Gln Tyr Pro
E--> 3376 5825          15830          15835          15840
  3377 Phe Lys Val Pro Gly Pro Pro Gly Thr Pro Val Val Thr Leu Ser Ser
  3378          15845          15850          15855
  3379 Arg Asp Ser Met Glu Val Gln Trp Asn Glu Pro Ile Ser Asp Gly Gly
  3380          15860          15865          15870
  3381 Ser Arg Val Ile Gly Tyr His Leu Glu Arg Lys Glu Arg Asn Ser Ile
  3382          15875          15880          15885
  3383 Leu Trp Val Lys Leu Asn Lys Thr Pro Ile Pro Gln Thr Lys Phe Lys
E--> 3384 15890          15895          15900          1

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RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

3385 Thr Thr Gly Leu Glu Glu Gly Val Glu Tyr Glu Phe Arg Val Ser Ala
 E--> 3386 5905 15910 15915 15920
 3387 Glu Asn Ile Val Gly Ile Gly Lys Pro Ser Lys Val Ser Glu Cys Tyr
 3388 15925 15930 15935
 3389 Val Ala Arg Asp Pro Cys Asp Pro Pro Gly Arg Pro Glu Ala Ile Ile
 3390 15940 15945 15950
 3391 Val Thr Arg Asn Ser Val Thr Leu Glu Trp Lys Lys Pro Thr Tyr Asp
 3392 15955 15960 15965
 3393 Gly Gly Ser Lys Ile Thr Gly Tyr Ile Val Glu Lys Lys Glu Leu Pro
 E--> 3394 15970 15975 15980 1
 3395 Glu Gly Arg Trp Met Lys Ala Ser Phe Thr Asn Ile Ile Asp Thr His
 E--> 3396 5985 15990 15995 16000
 3397 Phe Glu Val Thr Gly Len Val Glu Asp His Arg Tyr Glu Phe Arg Val
 3398 16005 16010 16015
 3399 Ile Ala Arg Asn Ala Ala Gly Val Phe Ser Glu Pro Ser Glu Ser Thr
 3400 16020 16025 16030
 3401 Gly Ala Ile Thr Ala Arg Asp Glu Val Asp Pro Pro Arg Ile Ser Met
 3402 16035 16040 16045
 3403 Asp Pro Lys Tyr Lys Asp Thr Ile Val Val His Ala Gly Glu Ser Phe
 E--> 3404 16050 16055 16060 1
 3405 Lys Val Asp Ala Asp Ile Tyr Gly Lys Pro Ile Pro Thr Ile Glu Trp
 E--> 3406 6065 16070 16075 16080
 3407 Ile Lys Gly Asp Gln Glu Leu Ser Asn Thr Ala Arg Leu Glu Ile Lys
 3408 16085 16090 16095
 3409 Ser Thr Asp Phe Ala Thr Ser Leu Ser Val Lys Asp Ala Val Arg Val
 3410 16100 16105 16110
 3411 Asp Ser Gly Asn Tyr Ile Leu Lys Ala Lys Asn Val Ala Gly Glu Arg
 3412 16115 16120 16125
 3413 Ser Val Thr Val Asn Val Lys Val Leu Asp Arg Pro Gly Pro Pro Glu
 E--> 3414 16130 16135 16140 1
 3415 Gly Pro Val Val Ile Ser Gly Val Thr Ala Glu Lys Cys Thr Leu Ala
 E--> 3416 6145 16150 16155 16160
 3417 Trp Lys Pro Pro Leu Gln Asp Gly Gly Ser Asp Ile Ile Asn Tyr Ile
 3418 16165 16170 16175
 3419 Val Glu Arg Arg Glu Thr Ser Arg Leu Val Trp Thr Val Val Asp Ala
 3420 16180 16185 16190
 3421 Asn Val Gln Thr Leu Ser Cys Lys Val Thr Lys Leu Leu Glu Gly Asn
 3422 16195 16200 16205
 3423 Glu Tyr Thr Phe Arg Ile Met Ala Val Asn Lys Tyr Gly Val Gly Glu
 E--> 3424 16210 16215 16220 1
 3425 Pro Leu Glu Ser Glu Pro Val Val Ala Lys Asn Pro Phe Val Val Pro
 E--> 3426 6225 16230 16235 16240
 3427 Asp Ala Pro Lys Ala Pro Glu Val Thr Thr Val Thr Lys Asp Ser Met
 3428 16245 16250 16255
 3429 Ile Val Val Trp Glu Arg Pro Ala Ser Asp Gly Gly Ser Glu Ile Leu
 3430 16260 16265 16270
 3431 Gly Tyr Val Leu Glu Lys Arg Asp Lys Glu Gly Ile Arg Trp Thr Arg
 3432 16275 16280 16285
 3433 Cys His Lys Arg Leu Ile Gly Glu Leu Arg Val Thr Gly Leu

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508 DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

E--> 3434 16290 16295 16300 1
3435 Ile Glu Asn His Asp Tyr Glu Phe Arg Val Ser Ala Glu Asn Ala Ala
E--> 3436 6305 16310 16315 16320
3437 Gly Leu Ser Glu Pro Ser Pro Pro Ser Ala Tyr Gln Lys Ala Cys Asp
3438 16325 16330 16335
3439 Pro Ile Tyr Lys Pro Gly Pro Pro Asn Asn Pro Lys Val Ile Asp Ile
3440 16340 16345 16350
3441 Thr Arg Ser Ser Val Phe Leu Ser Trp Ser Lys Pro Ile Tyr Asp Gly
3442 16355 16360 16365
3443 Gly Cys Glu Ile Gln Gly Tyr Ile Val Glu Lys Cys Asp Val Asn Val
E--> 3444 16370 16375 16380 1
3445 Gly Glu Trp Thr Met Cys Thr Pro Pro Thr Gly Ile Asn Lys Thr Asn
E--> 3446 6385 16390 16395 16400
3447 Ile Glu Val Glu Lys Leu Leu Glu Lys His Glu Tyr Asn Phe Arg Ile
3448 16405 16410 16415
3449 Cys Ala Ile Asn Lys Ala Gly Val Gly Glu His Ala Asp Val Pro Gly
3450 16420 16425 16430
3451 Pro Ile Ile Val Glu Glu Lys Leu Glu Ala Pro Asp Ile Asp Leu Asp
3452 16435 16440 16445
3453 Leu Glu Leu Arg Lys Ile Ile Asn Ile Arg Ala Gly Ser Leu Arg
E--> 3454 16450 16455 16460 1
3455 Leu Phe Val Pro Ile Lys Gly Arg Pro Thr Pro Glu Val Lys Trp Gly
E--> 3456 6465 16470 16475 16480
3457 Lys Val Asp Gly Glu Ile Arg Asp Ala Ala Ile Ile Asp Val Thr Ser
3458 16485 16490 16495
3459 Ser Phe Thr Ser Leu Val Leu Asp Asn Val Asn Arg Tyr Asp Ser Gly
3460 16500 16505 16510
3461 Lys Tyr Thr Leu Thr Leu Glu Asn Ser Ser Gly Thr Lys Ser Ala Phe
3462 16515 16520 16525
3463 Val Thr Val Arg Val Leu Asp Thr Pro Ser Pro Pro Val Asn Leu Lys
E--> 3464 16530 16535 16540 1
3465 Val Thr Glu Ile Thr Lys Asp Ser Val Ser Ile Thr Trp Glu Pro Pro
E--> 3466 6545 16550 16555 16560
3467 Leu Leu Asp Gly Gly Ser Lys Ile Lys Asn Tyr Ile Val Glu Lys Arg
3468 16565 16570 16575
3469 Glu Ala Thr Arg Lys Ser Tyr Ala Ala Val Val Thr Asn Cys His Lys
3470 16580 16585 16590
3471 Asn Ser Trp Lys Ile Asp Gln Leu Gln Glu Gly Cys Ser Tyr Tyr Phe
3472 16595 16600 16605
3473 Arg Val Thr Ala Glu Asn Glu Tyr Gly Ile Gly Leu Pro Ala Gln Thr
E--> 3474 16610 16615 16620 1
3475 Ala Asp Pro Ile Lys Val Ala Glu Val Pro Gln Pro Pro Gly Lys Ile
E--> 3476 6625 16630 16635 16640
3477 Thr Val Asp Asp Val Thr Arg Asn Ser Val Ser Leu Ser Trp Thr Lys
3478 16645 16650 16655
3479 Pro Glu His Asp Gly Gly Ser Lys Ile Ile Gln Tyr Ile Val Glu Met
3480 16660 16665 16670
3481 Gln Ala Lys His Ser Glu Lys Trp Ser Glu Cys Ala Arg Val Lys Ser
3482 16675 16680 16685

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

3483 Leu Gln Ala Val Ile Thr Asn Leu Thr Gln Gly Glu Glu Tyr Leu Phe
E--> 3484 16690 16695 16700 1
3485 Arg Val Val Ala Val Asn Glu Lys Glu Arg Ser Asp Pro Arg Ser Leu
E--> 3486 6705 16710 16715 16720
3487 Ala Val Pro Ile Val Ala Lys Asp Leu Val Ile Glu Pro Asp Val Lys
3488 16725 16730 16735
3489 Pro Ala Phe Ser Ser Tyr Ser Val Gln Val Gly Gin Asp Leu Lys Ile
3490 16740 16745 16750
3491 Glu Val Pro Ile Ser Gly Arg Pro Lys Pro Thr Ile Thr Trp Thr Lys
3492 16755 16760 16765
3493 Asp Gly Leu Pro Leu Lys Gln Thr Thr Arg Ile Asn Val Thr Asp Ser
E--> 3494 16770 16775 16780 1
3495 Leu Asp Leu Thr Thr Leu Ser Ile Lys Glu Thr His Lys Asp Asp Gly
E--> 3496 6785 16790 16795 16800
3497 Gly Gln Tyr Gly Ile Thr Val Ala Asn Val Gly Gln Lys Thr Ala
3498 16805 16810 16815
3499 Ser Ile Glu Ile Val Thr Leu Asp Lys Pro Asp Pro Lys Gly Pro
3500 16820 16825 16830
3501 Val Lys Phe Asp Asp Val Ser Ala Glu Ser Ile Thr Leu Ser Trp Asn
3502 16835 16840 16845
3503 Pro Pro Leu Tyr Thr Gly Gly Cys Gln Ile Thr Asn Tyr Ile Val Gln
E--> 3504 16850 16855 16860 1
3505 Lys Arg Asp Thr Thr Thr Val Trp Asp Val Val Ser Ala Thr Val
E--> 3506 6865 16870 16875 16880
3507 Ala Arg Thr Thr Leu Lys Val Thr Lys Leu Lys Thr Gly Thr Glu Tyr
3508 16885 16890 16895
3509 Gln Phe Arg Ile Phe Ala Glu Asn Arg Tyr Gly Gln Ser Phe Ala Leu
3510 16900 16905 16910
3511 Glu Ser Asp Pro Ile Val Ala Gln Tyr Pro Tyr Lys Glu Pro Gly Pro
3512 16915 16920 16925
3513 Pro Gly Thr Pro Phe Ala Thr Ala Ile Ser Lys Asp Ser Met Val Ile
E--> 3514 16930 16935 16940 1
3515 Glu Trp His Glu Pro Val Asn Asn GLY Gly Ser Pro Val Ile Gly Tyr
E--> 3516 6945 16950 16955 16960
3517 His Leu Glu Arg Lys Glu Arg Asn Ser Ile Leu Trp Thr Lys Val Asn
3518 16965 16970 16975
3519 Lys Thr Ile Ile His Asp Thr Gln Phe Lys Ala Gln Asn Leu Glu Glu
3520 16980 16985 16990
3521 Gly Ile Glu Tyr Glu Phe Arg Val Tyr Ala Glu Asn Ile Val Gly Val
3522 16995 17000 17005
3523 Gly Lys Ala Ser Lys Asn Ser Glu Cys Tyr Val Ala Arg Asp Pro Cys
E--> 3524 17010 17015 17020 1
3525 Asp Pro Pro Gly Thr Pro Glu Pro Ile Met Val Lys Arg Asn Glu Ile
E--> 3526 7025 17030 17035 17040
3527 Thr Leu Gln Trp Thr Lys Pro Val Tyr Asp Gly Gly Ser Met Ile Thr
3528 17045 17050 17055
3529 Gly Tyr Ile Val Glu Lys Arg Asp Leu Pro Asp Gly Arg Trp Met Lys
3530 17060 17065 17070
3531 Ala Ser Phe Thr Asn Val Ile Glu Thr Gln Phe Thr Val Ser Gly Leu

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

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3532      17075      17080      17085
3533 Thr Glu Asp Gln Arg Tyr Glu Phe Arg Val Ile Ala Lys Asn Ala Ala
E--> 3534      17090      17095      17100      1
3535 Gly Ala Ile Ser Lys Pro Ser Asp Ser Thr Gly Pro Ile Thr Ala Lys
E--> 3536 7105      17110      17115      17120
3537 Asp Glu Val Glu Leu Pro Arg Ile Ser Met Asp Pro Lys Phe Arg Asp
3538      17125      17130      17135
3539 Thr Ile Val Val Asn Ala Gly Glu Thr Phe Arg Leu Glu Ala Asp Val
3540      17140      17145      17150
3541 His Gly Lys Pro Leu Pro Thr Ile Glu Trp Leu Arg Gly Asp Lys Glu
3542      17155      17160      17165
3543 Ile Glu Glu Ser Ala Arg Cys Glu Ile Lys Asn Thr Asp Phe Lys Ala
E--> 3544      17170      17175      17180      1
3545 Leu Ile Ile Val Lys Asp Ala Ile Arg Ile Asp Gly Gly Gln Tyr Ile
E--> 3546 7185      17190      17195      17200
3547 Leu Arg Ala Ser Asn Val Ala Gly Ser Lys Ser Phe Pro Val Asn Val
3548      17205      17210      17215
3549 Lys Val Leu Asp Arg Pro Gly Pro Pro Glu Gly Pro Val Gln Val Thr
3550      17220      17225      17230
3551 Gly Val Thr Ser Glu Lys Cys Ser Leu Thr Trp Ser Pro Pro Leu Gln
3552      17235      17240      17245
3553 Asp Gly Gly Ser Asp Ile Ser His Tyr Val Val Glu Lys Arg Glu Thr
E--> 3554      17250      17255      17260      1
3555 Ser Arg Leu Ala Trp Thr Val Val Ala Ser Glu Val Val Thr Asn Ser
E--> 3556 7265      17270      17275      17280
3557 Leu Lys Val Thr Lys Leu Leu Glu Gly Asn Glu Tyr Val Phe Arg Ile
3558      17285      17290      17295
3559 Met Ala Val Asn Lys Tyr Gly Val Gly Glu Pro Leu Glu Ser Ala Pro
3560      17300      17305      17310
3561 Val Leu Met Lys Asn Pro Phe Val Leu Pro Gly Pro Pro Lys Ser Leu
3562      17315      17320      17325
3563 Glu Val Thr Asn Ile Ala Lys Asp Ser Met Thr Val Cys Trp Asn Arg
E--> 3564      17330      17335      17340      1
3565 Pro Asp Ser Asp Gly Gly Ser Glu Ile Ile Gly Tyr Ile Val Glu Lys
E--> 3566 7345      17350      17355      17360
3567 Arg Asp Arg Ser Gly Ile Arg Trp Ile Lys Cys Asn Lys Arg Arg Ile
3568      17365      17370      17375
3569 Thr Asp Leu Arg Leu Arg Val Thr Gly Leu Thr Glu Asp His Glu Tyr
3570      17380      17385      17390
3571 Glu Phe Arg Val Ser Ala Glu Asn Ala Ala Gly Val Gly Glu Pro Ser
3572      17395      17400      17405
3573 Pro Ala Thr Val Tyr Tyr Ala Cys Asp Pro Val Phe Lys Pro Gly
E--> 3574      17410      17415      17420      1
3575 Pro Pro Thr Asn Ala His Ile Val Asp Thr Thr Lys Asn Ser Ile Thr
E--> 3576 7425      17430      17435      17440
3577 Leu Ala Trp Gly Lys Pro Ile Tyr Asp Gly Gly Ser Glu Ile Leu Gly
3578      17445      17450      17455
3579 Tyr Val Val Glu Ile Cys Lys Ala Asp Glu Glu Trp Gln Ile Val
3580      17460      17465      17470

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

3581 Thr Pro Gln Thr Gly Leu Arg Val Thr Arg Phe Glu Ile Ser Lys Leu
3582 17475 17480 17485
3583 Thr Glu His Gln Glu Tyr Lys Ile Arg Val Cys Ala Leu Asn Lys Val
E--> 3584 17490 17495 17500 1
3585 Gly Leu Gly Glu Ala Thr Ser Val Pro Gly Thr Val Lys Pro Glu Asp
E--> 3586 7505 17510 17515 17520
3587 Lys Leu Glu Ala Pro Glu Leu Asp Ser Glu Leu Arg Lys Gly
3588 17525 17530 17535
3589 Ile Val Val Arg Ala Gly Gly Ser Ala Arg Ile His Ile Pro Phe Lys
3590 17540 17545 17550
3591 Gly Arg Pro Met Pro Glu Ile Thr Trp Ser Arg Glu Glu Gly Glu Phe
3592 17555 17560 17565
3593 Thr Asp Lys Val Gln Ile Glu Lys Gly Val Asn Tyr Thr Gln Leu Ser
E--> 3594 17570 17575 17580 1
3595 Ile Asp Asn Cys Asp Arg Asn Asp Ala Gly Lys Tyr Ile Leu Lys Leu
E--> 3596 7585 17590 17595 17600
3597 Glu Asn Ser Ser Gly Ser Lys Ser Ala Phe Val Thr Val Lys Val Leu
3598 17605 17610 17615
3599 Asp Thr Pro Gly Pro Pro Gln Asn Leu Ala Val Lys Glu Val Arg Lys
3600 17620 17625 17630
3601 Asp Ser Ala Phe Ile Val Trp Glu Pro Pro Ile Ile Asp Gly Gly Ala
3602 17635 17640 17645
3603 Lys Val Lys Asn Tyr Val Ile Asp Lys Arg Glu Ser Thr Arg Lys Ala
E--> 3604 17650 17655 17660 1
3605 Tyr Ala Asn Val Ser Ser Lys Cys Ser Lys Thr Ser Phe Lys Val Glu
E--> 3606 7665 17670 17675 17680
3607 Asn Leu Thr Glu Gly Ala Ile Tyr Tyr Phe Arg Val Met Ala Glu Asn
3608 17685 17690 17695
3609 Glu Phe Gly Val Gly Val Pro Val Glu Thr Val Asp Ala Val Lys Ala
3610 17700 17705 17710
3611 Ala Glu Pro Pro Ser Pro Pro Gly Lys Val Thr Leu Thr Asp Val Ser
3612 17715 17720 17725
3613 Gln Thr Ser Ala Ser Leu Met Trp Glu Lys Pro Glu His Asp Gly Gly
E--> 3614 17730 17735 17740 1
3615 Ser Arg Val Leu Gly Tyr Val Val Glu Met Gln Pro Lys Gly Thr Gln
E--> 3616 7745 17750 17755 17760
3617 Lys Trp Ser Ile Val Ala Glu Ser Lys Val Cys Asn Ala Val Val Thr
3618 17765 17770 17775
3619 Gly Leu Ser Ser Gly Gln Glu Tyr Gln Phe Arg Val Lys Ala Tyr Asn
3620 17780 17785 17790
3621 Glu Lys Gly Lys Ser Asp Pro Arg Val Leu Gly Val Pro Val Ile Ala
3622 17795 17800 17805
3623 Lys Asp Leu Thr Ile Gln Pro Ser Leu Lys Leu Pro Phe Asn Thr Tyr
E--> 3624 17810 17815 17820 1
3625 Ser Ile Gln Ala Gly Glu Asp Leu Lys Ile Glu Ile Pro Val Ile Gly
E--> 3626 7825 17830 17835 17840
3627 Arg Pro Arg Pro Asn Ile Ser Trp Val Lys Asp Gly Glu Pro Leu Lys
3628 17845 17850 17855
3629 Gln Thr Thr Arg Val Asn Val Glu Glu Thr Ala Thr Ser Thr Val Leu

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
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3630 17860 17865 17870
 3631 His Ile Lys Glu Gly Asn Lys Asp Asp Phe Gly Lys Tyr Thr Val Thr
 3632 17875 17880 17885
 3633 Ala Thr Asn Ser Ala Gly Thr Ala Thr Glu Asn Leu Ser Val Ile Val
 E--> 3634 17890 17895 17900 1
 3635 Leu Glu Lys Pro Gly Pro Pro Val Gly Pro Val Arg Phe Asp Glu Val
 E--> 3636 7905 17910 17915 17920
 3637 Ser Ala Asp Phe Val Val Ile Ser Trp Glu Pro Pro Ala Tyr Thr Gly
 3638 17925 17930 17935
 3639 Gly Cys Gln Ile Ser Asn Tyr Ile Val Glu Lys Arg Asp Thr Thr Thr
 3640 17940 17945 17950
 3641 Thr Thr Trp His Met Val Ser Ala Thr Val Ala Arg Thr Thr Ile Lys
 3642 17955 17960 17965
 3643 Ile Thr Lys Leu Lys Thr Gly Thr Glu Tyr Gin Phe Arg Ile Phe Ala
 E--> 3644 17970 17975 17980 1
 3645 Glu Asn Arg Tyr Gly Lys Ser Ala Pro Leu Asp Ser Lys Ala Val Ile
 E--> 3646 7985 17990 17995 18000
 3647 Val Gin Tyr Pro Phe Lys Glu Pro Gly Pro Pro Gly Thr Pro Phe Val
 3648 18005 18010 18015
 3649 Thr Ser Ile Ser Lys Asp Gin Met Leu Val Gln Trp His Glu Pro Val
 3650 18020 18025 18030
 3651 Asn Asp Cys Gly Thr Lys Ile Ile Gly Tyr His Leu Glu Gln Lys Glu
 3652 18035 18040 18045
 3653 Lys Asn Ser Ile Leu Trp Val Lys Leu Asn Lys Thr Pro Ile Gin Asp
 E--> 3654 18050 18055 18060 1
 3655 Thr Lys Phe Lys Thr Thr Gly Leu Asp Glu Gly Leu Glu Tyr Glu Phe
 E--> 3656 8065 18070 18075 18080
 3657 Lys Val Ser Ala Glu Asn Ile Val Gly Ile Gly Lys Pro Ser Lys Val
 3658 18085 18090 18095
 3659 Ser Glu Cys Phe Val Ala Arg Asp Pro Cys Asp Pro Pro Gly Arg Pro
 3660 18100 18105 18110
 3661 Glu Ala Ile Val Ile Thr Arg Asn Asn Val Thr Leu Lys Trp Lys Lys
 3662 18115 18120 18125
 3663 Pro Ala Tyr Asp Gly Gly Ser Lys Ile Thr Gly Tyr Ile Val Glu Lys
 E--> 3664 18130 18135 18140 1
 3665 Lys Asp Leu Pro Asp Gly Arg Trp Met Lys Ala Ser Phe Thr Asn Val
 E--> 3666 8145 18150 18155 18160
 3667 Leu Glu Thr Glu Phe Thr Val Ser Gly Leu Val Glu Asp Gln Arg Tyr
 3668 18165 18170 18175
 3669 Glu Phe Arg Val Ile Ala Arg Asn Ala Ala Gly Asn Phe Ser Glu Pro
 3670 18180 18185 18190
 3671 Ser Asp Ser Ser Gly Ala Ile Thr Ala Arg Asp Glu Ile Asp Ala Pro
 3672 18195 18200 18205
 3673 Asn Ala Ser Ile Asp Pro Lys Tyr Lys Asp Val Ile Val Val His Ala
 E--> 3674 18210 18215 18220 1
 3675 Gly Glu Thr Phe Val Leu Glu Ala Asp Ile Arg Gly Lys Pro Ile Pro
 E--> 3676 8225 18230 18235 18240
 3677 Asp Val Val Trp Ser Lys Asp Gly Lys Glu Leu Glu Glu Thr Ala Ala
 3678 18245 18250 18255

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

3679 Arg Met Glu Ile Lys Ser Thr Ile Gln Lys Thr Thr Leu Val Val Lys
 3680 18260 18265 18270
 3681 Asp Cys Ile Arg Thr Asp Gly Gly Gln Tyr Ile Leu Lys Leu Ser Asn
 3682 18275 18280 18285
 3683 Val Gly Gly Thr Lys Ser Ile Pro Ile Thr Val Lys Val Leu Asp Arg
E--> 3684 18290 18295 18300 1
 3685 Pro Gly Ser Pro Glu Gly Pro Leu Lys Val Thr Gly Val Thr Ala Glu
E--> 3686 8305 18310 18315 18320
 3687 Lys Cys Tyr Leu Ala Trp Asn Pro Pro Leu Gln Asp Gly Gly Ala Asn
 3688 18325 18330 18335
 3689 Ile Ser His Tyr Ile Ile Glu Lys Arg Glu Thr Ser Arg Leu Ser Trp
 3690 18340 18345 18350
 3691 Thr Gln Val Ser Thr Glu Val Gln Ala Leu Asn Tyr Lys Val Thr Lys
 3692 18355 18360 18365
 3693 Leu Leu Pro Gly Asn Glu Tyr Ile Phe Arg Val Met Ala Val Asn Lys
E--> 3694 18370 18375 18380 1
 3695 Tyr Gly Ile Gly Glu Pro Leu Glu Ser Gly Pro Val Thr Ala Cys Asn
E--> 3696 8385 18390 18395 18400
 3697 Pro Tyr Lys Pro Pro Gly Pro Pro Ser Thr Pro Glu Val Ser Ala Ile
 3698 18405 18410 18415
 3699 Thr Lys Asp Ser Met Val Val Thr Trp Ala Arg Pro Val Asp Asp Gly
 3700 18420 18425 18430
 3701 Gly Thr Glu Ile Glu Gly Tyr Ile Leu Glu Lys Arg Asp Lys Glu Gly
 3702 18435 18440 18445
 3703 Val Arg Trp Thr Lys Cys Asn Lys Lys Thr Leu Thr Asp Leu Arg Leu
E--> 3704 18450 18455 18460 1
 3705 Arg Val Thr Gly Leu Thr Glu Gly His Ser Tyr Glu Phe Arg Val Ala
E--> 3706 8465 18470 18475 18480
 3707 Ala Glu Asn Ala Ala Gly Val Gly Glu Pro Ser Glu Pro Ser Val Phe
 3708 18485 18490 18495
 3709 Tyr Arg Ala Cys Asp Ala Leu Tyr Pro Pro Gly Pro Pro Ser Asn Pro
 3710 18500 18505 18510
 3711 Lys Val Thr Asp Thr Ser Arg Ser Ser Val Ser Leu Ala Trp Ser Lys
 3712 18515 18520 18525
 3713 Pro Ile Tyr Asp Gly Gly Ala Pro Val Lys Gly Tyr Val Val Glu Val
E--> 3714 18530 18535 18540 1
 3715 Lys Glu Ala Ala Ala Asp Glu Trp Thr Thr Cys Thr Pro Pro Thr Gly
E--> 3716 8545 18550 18555 18560
 3717 Leu Gln Gly Lys Gln Phe Thr Val Thr Lys Leu Lys Glu Asn Thr Glu
 3718 18565 18570 18575
 3719 Tyr Asn Phe Arg Ile Cys Ala Ile Asn Ser Glu Gly Val Gly Glu Pro
 3720 18580 18585 18590
 3721 Ala Thr Leu Pro Gly Ser Val Val Ala Glu Glu Arg Ile Glu Pro Pro
 3722 18595 18600 18605
 3723 Glu Ile Glu Leu Asp Ala Asp Leu Arg Lys Val Val Val Leu Arg Ala
E--> 3724 18610 18615 18620 1
 3725 Ser Ala Thr Leu Arg Leu Phe Val Thr Ile Lys Gly Arg Pro Glu Pro
E--> 3726 8625 18630 18635 18640
 3727 Glu Val Lys Trp Glu Lys Ala Glu Gly Ile Leu Thr Asp Arg Ala Gln

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

3728	18645	18650	18655
3729	Ile Glu Val Thr Ser Ser Phe Thr Met Leu Val Ile Asp Asn Val Thr		
3730	18660	18665	18670
3731	Arg Phe Asp Ser Gly Arg Tyr Asn Leu Thr Leu Glu Asn Asn Ser Gly		
3732	18675	18680	18685
3733	Ser Lys Thr Ala Phe Val Asn Val Arg Val Leu Asp Ser Pro Ser Ala		
E--> 3734	18690	18695	18700
E--> 3736 8705	18710	18715	18720
3737	Ser Trp Glu Pro Pro Leu Ile Asp Gly Gly Ala Lys Ile Thr Asn Tyr		
3738	18725	18730	18735
3739	Ile Val Glu Lys Arg Glu Thr Thr Arg Lys Ala Tyr Ala Thr Ile Thr		
3740	18740	18745	18750
3741	Asn Asn Cys Thr Lys Thr Thr Phe Arg Ile Glu Asn Leu Gln Glu Gly		
3742	18755	18760	18765
3743	Cys Ser Tyr Tyr Phe Arg Val Leu Ala Ser Asn Glu Tyr Gly Ile Gly		
E--> 3744	18770	18775	18780
3745	Leu Pro Ala Glu Thr Thr Glu Pro Val Lys Val Ser Glu Pro Pro Leu		
E--> 3746 8785	18790	18795	18800
3747	Pro Pro Gly Arg Val Thr Leu Val Asp Val Thr Arg Asn Thr Ala Thr		
3748	18805	18810	18815
3749	Ile Lys Trp Glu Lys Pro Glu Ser Asp Gly Gly Ser Lys Ile Thr Gly		
3750	18820	18825	18830
3751	Tyr Val Val Glu Met Gln Thr Lys Gly Ser Glu Lys Trp Ser Thr Cys		
3752	18835	18840	18845
3753	Thr Gln Val Lys Thr Leu Glu Ala Thr Ile Ser Gly Leu Thr Ala Gly		
E--> 3754	18850	18855	18860
3755	Glu Glu Tyr Val Phe Arg Val Ala Ala Val Asn Glu Lys Gly Arg Ser		
E--> 3756 8865	18870	18875	18880
3757	Asp Pro Arg Gln Leu Gly Val Pro Val Ile Ala Arg Asp Ile Glu Ile		
3758	18885	18890	18895
3759	Lys Pro Ser Val Glu Leu Pro Phe His Thr Phe Asn Val Lys Ala Arg		
3760	18900	18905	18910
3761	Glu Gln Leu Lys Ile Asp Val Pro Phe Lys Gly Arg Pro Gln Ala Thr		
3762	18915	18920	18925
3763	Val Asn Trp Arg Lys Asp Gly Gln Thr Leu Lys Glu Thr Thr Arg Val		
E--> 3764	18930	18935	18940
3765	Asn Val Ser Ser Lys Thr Val Thr Ser Leu Ser Ile Lys Glu Ala		
E--> 3766 8945	18950	18955	18960
3767	Ser Lys Glu Asp Val Gly Thr Tyr Glu Leu Cys Val Ser Asn Ser Ala		
3768	18965	18970	18975
3769	Gly Ser Ile Thr Val Pro Ile Thr Ile Val Leu Asp Arg Pro Gly		
3770	18980	18985	18990
3771	Pro Pro Gly Pro Ile Arg Ile Asp Glu Val Ser Cys Asp Ser Ile Thr		
3772	18995	19000	19005
3773	Ile Ser Trp Asn Pro Pro Glu Tyr Asp Gly Cys Gln Ile Ser Asn		
E--> 3774	19010	19015	19020
3775	Tyr Ile Val Glu Lys Lys Glu Thr Thr Ser Thr Thr Trp His Ile Val		
E--> 3776 9025	19030	19035	19040

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

3777 Ser Gln Ala Val Ala Arg Thr Ser Ile Lys Ile Val Arg Leu Thr Thr
3778 19045 19050 19055
3779 Gly Ser Glu Tyr Glu Phe Arg Val Cys Ala Glu Asn Arg Tyr Gly Lys
3780 19060 19065 19070
3781 Ser Ser Tyr Ser Glu Ser Ser Ala Val Val Ala Glu Tyr Pro Phe Ser
3782 19075 19080 19085
3783 Pro Pro Gly Pro Pro Gly Thr Pro Lys Val Val His Ala Thr Lys Ser
E--> 3784 19090 19095 19100 1
3785 Thr Met Leu Val Thr Trp Glu Val Pro Val Asn Asp Gly Gly Ser Arg
E--> 3786 9105 19110 19115 19120
3787 Val Ile Gly Tyr His Leu Glu Tyr Lys Glu Arg Ser Ser Ile Leu Trp
3788 19125 19130 19135
3789 Ser Lys Ala Asn Lys Ile Leu Ile Ala Asp Thr Glu Val Lys Val Ser
3790 19140 19145 19150
3791 Gly Leu Asp Glu Gly Leu Met Tyr Glu Tyr Arg Val Tyr Ala Glu Asn
3792 19155 19160 19165
3793 Ile Ala Gly Ile Gly Lys Cys Ser Lys Ser Cys Glu Pro Val Pro Ala
E--> 3794 19170 19175 19180 1
3795 Arg Asp Pro Cys Asp Pro Pro Gly Gln Pro Glu Val Thr Asn Ile Thr
E--> 3796 9185 19190 19195 19200
3797 Arg Lys Ser Val Ser Leu Lys Trp Ser Lys Pro His Tyr Asp Gly Gly
3798 19205 19210 19215
3799 Ala Lys Ile Thr Gly Tyr Ile Val Glu Arg Arg Glu Leu Pro Asp Gly
3800 19220 19225 19230
3801 Arg Trp Leu Lys Cys Asn Tyr Thr Asn Ile Gln Glu Thr Tyr Phe Glu
3802 19235 19240 19245
3803 Val Thr Glu Leu Thr Glu Asp Gln Arg Tyr Glu Phe Arg Val Phe Ala
E--> 3804 19250 19255 19260 1
3805 Arg Asn Ala Ala Asp Ser Val Ser Glu Pro Ser Glu Ser Thr Gly Pro
E--> 3806 9265 19270 19275 19280
3807 Ile Ile Val Lys Asp Asp Val Glu Pro Pro Arg Val Met Met Asp Val
3808 19285 19290 19295
3809 Lys Phe Arg Asp Val Ile Val Val Lys Ala Gly Glu Val Leu Lys Ile
3810 19300 19305 19310
3811 Asn Ala Asp Ile Ala Gly Arg Pro Leu Pro Val Ile Ser Trp Ala Lys
3812 19315 19320 19325
3813 Asp Gly Ile Glu Ile Glu Glu Arg Ala Arg Thr Glu Ile Ile Ser Thr
E--> 3814 19330 19335 19340 1
3815 Asp Asn His Thr Leu Leu Thr Val Lys Asp Cys Ile Arg Arg Asp Thr
E--> 3816 9345 19350 19355 19360
3817 Gly Glu Tyr Val Leu Thr Leu Lys Asn Val Ala Gly Thr Arg Ser Val
3818 19365 19370 19375
3819 Ala Val Asn Cys Lys Val Leu Asp Lys Pro Gly Pro Pro Ala Gly Pro
3820 19380 19385 19390
3821 Leu Glu Ile Asn Gly Leu Thr Ala Glu Lys Cys Ser Leu Ser Trp Gly
3822 19395 19400 19405
3823 Arg Pro Gln Glu Asp Gly Gly Ala Asp Ile Asp Tyr Tyr His Arg Lys
E--> 3824 19410 19415 19420 1
3825 Lys Arg Glu Thr Ser His Leu Ala Trp Thr Ile Cys Glu Gly Glu Leu

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

E--> 3826 9425 19430 19435 19440
3827 Cln Met Thr Ser Cys Lys Val Thr Lys Leu Leu Lys Gly Asn Glu Tyr
3828 19445 19450 19455
3829 Ile Phe Arg Val Thr Gly Val Asn Lys Tyr Gly Val Gly Glu Pro Leu
3830 19460 19465 19470
3831 Glu Ser Val Ala Ile Lys Ala Leu Asp Pro Phe Thr Val Pro Ser Pro
3832 19475 19480 19485
3833 Pro Thr Ser Leu Glu Ile Thr Ser Val Thr Lys Glu Ser Met Thr Leu
E--> 3834 19490 19495 19500 1
3835 Cys Trp Ser Arg Pro Glu Ser Asp Gly Gly Ser Glu Ile Ser Gly Tyr
E--> 3836 9505 19510 19515 19520
3837 Ile Ile Glu Arg Arg Glu Lys Asn Ser Leu Arg Trp Val Arg Val Asn
3838 19525 19530 19535
3839 Lys Lys Pro Val Tyr Asp Leu Arg Val Lys Ser Thr Gly Leu Arg Glu
3840 19540 19545 19550
3841 Gly Cys Glu Tyr Glu Tyr Arg Val Tyr Ala Glu Asn Ala Ala Gly Leu
3842 19555 19560 19565
3843 Ser Leu Pro Ser Glu Thr Ser Pro Leu Ile Arg Ala Glu Asp Pro Val
E--> 3844 19570 19575 19580 1
3845 Phe Leu Pro Ser Pro Ser Lys Pro Lys Ile Val Asp Ser Gly Lys
E--> 3846 9585 19590 19595 19600
3847 Thr Thr Ile Thr Ile Ala Trp Val Lys Pro Leu Phe Asp Gly Gly Ala
3848 19605 19610 19615
3849 Pro Ile Thr Gly Tyr Thr Val Glu Tyr Lys Ser Asp Asp Thr Asp
3850 19620 19625 19630
3851 Trp Lys Thr Ser Ile Gln Ser Leu Arg Gly Thr Glu Tyr Thr Ile Ser
3852 19635 19640 19645
3853 Gly Leu Thr Thr Gly Ala Glu Tyr Val Phe Arg Val Lys Ser Val Asn
E--> 3854 19650 19655 19660 1
3855 Lys Val Gly Ala Ser Asp Pro Ser Asp Ser Asp Pro Gln Ile Ala
E--> 3856 9665 19670 19675 19680
3857 Lys Glu Arg Gln Glu Glu Pro Leu Phe Asp Ile Asp Ser Gln Met Arg
3858 19685 19690 19695
3859 Lys Thr Leu Ile Val Lys Ala Gly Ala Ser Phe Thr Met Thr Val Pro
3860 19700 19705 19710
3861 Phe Arg Gly Arg Pro Val Pro Asn Val Leu Trp Ser Lys Pro Asp Thr
3862 19715 19720 19725
3863 Asp Leu Arg Thr Arg Ala Tyr Val Asp Thr Asp Ser Arg Thr Ser
E--> 3864 19730 19735 19740 1
3865 Leu Thr Ile Glu Asn Ala Asn Arg Asn Asp Ser Gly Lys Tyr Thr Leu
E--> 3866 9745 19750 19755 19760
3867 Thr Ile Gln Asn Val Leu Ser Ala Ala Ser Leu Thr Leu Val Val Lys
3868 19765 19770 19775
3869 Val Leu Asp Thr Pro Gly Pro Pro Thr Asn Ile Thr Val Gln Asp Val
3870 19780 19785 19790
3871 Thr Lys Glu Ser Ala Val Leu Ser Trp Asp Val Pro Glu Asn Asp Gly
3872 19795 19800 19805
3873 Gly Ala Pro Val Lys Asn Tyr His Ile Glu Lys Arg Glu Ala Ser Lys
E--> 3874 19810 19815 19820 1

RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
 Output Set: N:\CRF3\01292001\I759508.raw

3875 Lys Ala Trp Val Ser Val Thr Asn Asn Cys Asn Arg Leu Ser Tyr Lys
 E--> 3876 9825 19830 19835 19840
 3877 Val Thr Asn Leu Gln Glu Gly Ala Ile Tyr Tyr Phe Arg Val Ser Gly
 3878 19845 19850 19855
 3879 Glu Asn Glu Phe Gly Val Gly Ile Pro Ala Glu Thr Lys Glu Gly Val
 3880 19860 19865 19870
 3881 Lys Ile Thr Glu Lys Pro Ser Pro Pro Glu Lys Leu Gly Val Thr Ser
 3882 19875 19880 19885
 3883 Ile Ser Lys Asp Ser Val Ser Leu Thr Trp Leu Lys Pro Glu His Asp
 E--> 3884 19890 19895 19900 1
 3885 Gly Gly Ser Arg Ile Val His Tyr Val Val Glu Ala Leu Glu Lys Gly
 E--> 3886 9905 19910 19915 19920
 3887 Gln Lys Asn Trp Val Lys Cys Ala Val Ala Lys Ser Thr His His Val
 3888 19925 19930 19935
 3889 Val Ser Gly Leu Arg Glu Asn Ser Glu Tyr Phe Phe Arg Val Phe Ala
 3890 19940 19945 19950
 3891 Glu Asn Gln Ala Gly Leu Ser Asp Pro Arg Glu Leu Leu Leu Pro Val
 3892 19955 19960 19965
 3893 Leu Ile Lys Glu Gln Leu Glu Pro Pro Glu Ile Asp Met Lys Asn Phe
 E--> 3894 19970 19975 19980 1
 3895 Pro Ser His Thr Val Tyr Val Arg Ala Gly Ser Asn Leu Lys Val Asp
 E--> 3896 9985 19990 19995 20000
 3897 Ile Pro Ile Ser Gly Lys Pro Leu Pro Lys Val Thr Leu Ser Arg Asp
 3898 20005 20010 20015
 3899 Gly Val Pro Leu Lys Ala Thr Met Arg Phe Asn Thr Glu Ile Thr Ala
 3900 20020 20025 20030
 3901 Glu Asn Leu Thr Ile Asn Leu Lys Glu Ser Val Thr Ala Asp Ala Gly
 3902 20035 20040 20045
 3903 Arg Tyr Glu Ile Thr Ala Ala Asn Ser Ser Gly Thr Thr Lys Ala Phe
 E--> 3904 20050 20055 20060 2
 3905 Ile Asn Ile Val Val Leu Asp Arg Pro Gly Pro Pro Thr Gly Pro Val
 E--> 3906 0065 20070 20075 20080
 3907 Val Ile Ser Asp Ile Thr Glu Glu Ser Val Thr Leu Lys Trp Glu Pro
 3908 20085 20090 20095
 3909 Pro Lys Tyr Asp Gly Gly Ser Gln Val Thr Asn Tyr Ile Leu Leu Lys
 3910 20100 20105 20110
 3911 Arg Glu Thr Ser Thr Ala Val Trp Thr Glu Val Ser Ala Thr Val Ala
 3912 20115 20120 20125
 3913 Arg Thr Met Met Lys Val Met Lys Leu Thr Thr Gly Glu Glu Tyr Gln
 E--> 3914 20130 20135 20140 2
 3915 Phe Arg Ile Lys Ala Glu Asn Arg Phe Gly Ile Ser Asp His Ile Asp
 E--> 3916 0145 20150 20155 20160
 3917 Ser Ala Cys Val Thr Val Lys Leu Pro Tyr Thr Pro Gly Pro Pro
 3918 20165 20170 20175
 3919 Ser Thr Pro Trp Val Thr Asn Val Thr Arg Glu Ser Ile Thr Val Gly
 3920 20180 20185 20190
 3921 Trp His Glu Pro Val Ser Asn Gly Gly Ser Ala Val Val Gly Tyr His
 3922 20195 20200 20205
 3923 Leu Glu Met Lys Asp Arg Asn Ser Ile Leu Trp Gln Lys Ala Asn Lys

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

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E--> 3924      20210      20215      20220      2
3925 Leu Val Ile Arg Thr Thr His Phe Lys Val Thr Thr Ile Ser Ala Gly
E--> 3926 0225      20230      20235      20240
3927 Leu Ile Tyr Glu Phe Arg Val Tyr Ala Glu Asn Ala Ala Gly Val Gly
3928      20245      20250      20255
3929 Lys Pro Ser His Pro Ser Glu Pro Val Leu Ala Ile Asp Ala Cys Glu
3930      20260      20265      20270
3931 Pro Pro Arg Asn Val Arg Ile Thr Asp Ile Ser Lys Asn Ser Val Ser
3932      20275      20280      20285
3933 Leu Ser Trp Glu Glu Pro Ala Phe Asp Gly Gly Ser Lys Ile Thr Gly
E--> 3934      20290      20295      20300      2
3935 Tyr Ile Val Glu Arg Arg Asp Leu Pro Asp Gly Arg Trp Thr Lys Ala
E--> 3936 0305      20310      20315      20320
3937 Ser Phe Thr Asn Val Thr Glu Thr Gin Phe Thr Ile Ser Gly Leu Thr
3938      20325      20330      20335
3939 Gln Asn Ser Cln Tyr Glu Phe Arg Val Phe Ala Arg Asn Ala Val Gly
3940      20340      20345      20350
3941 Ser Ile Ser Asn Pro Ser Glu Val Val Gly Pro Ile Thr Cys Ile Asp
3942      20355      20360      20365
3943 Ser Tyr Gly Gly Pro Val Ile Asp Leu Pro Leu Glu Tyr Thr Glu Val
E--> 3944      20370      20375      20380      2
3945 Val Lys Tyr Arg Ala Gly Thr Ser Val Lys Leu Arg Ala Gly Ile Ser
E--> 3946 0385      20390      20395      20400
3947 Gly Lys Pro Ala Pro Thr Ile Glu Trp Tyr Lys Asp Asp Lys Glu Leu
3948      20405      20410      20415
3949 Gln Thr Asn Ala Leu Val Cys Val Glu Asn Thr Thr Asp Leu Ala Ser
3950      20420      20425      20430
3951 Ile Leu Ile Lys Asp Ala Asp Arg Leu Asn Ser Gly Cys Tyr Glu Leu
3952      20435      20440      20445
3953 Lys Leu Arg Asn Ala Met Ala Ser Ala Ser Ala Thr Ile Arg Val Gln
E--> 3954      20450      20455      20460      2
3955 Ile Leu Asp Lys Pro Gly Pro Pro Gly Gly Pro Ile Glu Phe Lys Thr
E--> 3956 0465      20470      20475      20480
3957 Val Thr Ala Glu Lys Ile Thr Leu Leu Trp Arg Pro Pro Ala Asp Asp
3958      20485      20490      20495
3959 Gly Gly Ala Lys Ile Thr His Tyr Ile Val Glu Lys Arg Glu Thr Ser
3960      20500      20505      20510
3961 Arg Val Val Trp Ser Met Val Ser Glu His Leu Glu Glu Cys Ile Ile
3962      20515      20520      20525
3963 Thr Thr Iys Ile Ile Lys Gly Asn Glu Tyr Ile Phe Arg Val Arg
E--> 3964      20530      20535      20540      2
3965 Ala Val Asn Lys Tyr Gly Ile Gly Glu Pro Leu Glu Ser Asp Ser Val
E--> 3966 0545      20550      20555      20560
3967 Val Ala Lys Asn Ala Phe Val Thr Pro Gly Pro Pro Gly Ile Pro Glu
3968      20565      20570      20575
3969 Val Thr Lys Ile Thr Lys Asn Ser Met Thr Val Val Trp Ser Arg Pro
3970      20580      20585      20590
3971 Ile Ala Asp Gly Gly Ser Asp Ile Ser Gly Tyr Phe Leu Glu Lys Arg
3972      20595      20600      20605

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786_381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

3973 Asp Lys Lys Ser Leu Gly Trp Phe Lys Val Leu Lys Glu Thr Ile Arg
E--> 3974 20610 20615 20620 2
3975 Asp Thr Arg Gln Lys Val Thr Gly Leu Thr Glu Asn Ser Asp Tyr Gln
E--> 3976 0625 20630 20635 20640
3977 Tyr Arg Val Cys Ala Val Asn Ala Ala Gly Gln Gly Pro Phe Ser Glu
3978 20645 20650 20655
3979 Pro Ser Glu Phe Tyr Lys Ala Ala Asp Pro Ile Asp Pro Pro Gly Pro
3980 20660 20665 20670
3981 Pro Ala Lys Ile Arg Ile Ala Asp Ser Thr Lys Ser Ser Ile Thr Leu
3982 20675 20680 20685
3983 Gly Trp Ser Lys Pro Val Tyr Asp Gly Gly Ser Ala Val Thr Gly Tyr
E--> 3984 20690 20695 20700 2
3985 Val Val Glu Ile Arg Gln Gly Glu Glu Glu Trp Thr Thr Val Ser
E--> 3986 0705 20710 20715 20720
3987 Thr Lys Gly Glu Val Arg Thr Thr Glu Tyr Val Val Ser Asn Leu Lys
3988 20725 20730 20735
3989 Pro Gly Val Asn Tyr Tyr Phe Arg Val Ser Ala Val Asn Cys Ala Gly
3990 20740 20745 20750
3991 Gln Gly Glu Pro Ile Glu Met Asn Glu Pro Val Gln Ala Lys Asp Ile
3992 20755 20760 20765
3993 Leu Glu Ala Pro Glu Ile Asp Leu Asp Val Ala Leu Arg Thr Ser Val
E--> 3994 20770 20775 20780 2
3995 Ile Ala Lys Ala Gly Glu Asp Val Gln Val Leu Ile Pro Phe Lys Gly
E--> 3996 0785 20790 20795 20800
3997 Arg Pro Pro Pro Thr Val Thr Trp Arg Lys Asp Glu Lys Asn Leu Gly
3998 20805 20810 20815
3999 Ser Asp Ala Arg Tyr Ser Ile Glu Asn Thr Asp Ser Ser Leu Leu
4000 20820 20825 20830
4001 Thr Ile Pro Gln Val Thr Arg Asn Asp Thr Gly Lys Tyr Ile Leu Thr
4002 20835 20840 20845
4003 Ile Glu Asn Gly Val Gly Glu Pro Lys Ser Ser Thr Val Ser Val Lys
E--> 4004 20850 20855 20860 2
4005 Val Leu Asp Thr Pro Ala Ala Cys Gln Lys Leu Gln Val Lys His Val
E--> 4006 0865 20870 20875 20880
4007 Ser Arg Gly Thr Val Thr Leu Leu Trp Asp Pro Pro Leu Ile Asp Gly
4008 20885 20890 20895
4009 Gly Ser Pro Ile Ile Asn Tyr Val Ile Glu Lys Arg Asp Ala Thr Lys
4010 20900 20905 20910
4011 Arg Thr Trp Ser Val Val Ser His Lys Cys Ser Ser Thr Ser Phe Lys
4012 20915 20920 20925
4013 Leu Ile Asp Leu Ser Glu Lys Thr Pro Phe Phe Arg Val Leu Ala
E--> 4014 20930 20935 20940 2
4015 Glu Asn Glu Ile Gly Ile Gly Glu Pro Cys Glu Thr Thr Glu Pro Val
E--> 4016 0945 20950 20955 20960
4017 Lys Ala Ala Glu Val Pro Ala Pro Ile Arg Asp Leu Ser Met Lys Asp
4018 20965 20970 20975
4019 Ser Thr Lys Thr Ser Val Ile Leu Ser Trp Thr Lys Pro Asp Phe Asp
4020 20980 20985 20990
4021 Gly Gly Ser Val Ile Thr Glu Tyr Val Val Glu Arg Lys Gly Lys Gly

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

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4022      20995      21000      21005
4023 Glu Gln Thr Trp Ser His Ala Gly Ile Ser Lys Thr Cys Glu Ile Glu
E--> 4024  21010      21015      21020      2
4025 Val Ser Gln Leu Lys Glu Gln Ser Val Ile Glu Phe Arg Val Phe Ala
E--> 4026 1025      21030      21035      21040
4027 Lys Asn Glu Lys Gly Leu Ser Asp Pro Val Thr Ile Gly Pro Ile Thr
4028      21045      21050      21055
4029 Val Lys Glu Leu Ile Ile Thr Pro Glu Val Asp Leu Ser Asp Ile Pro
4030      21060      21065      21070
4031 Gly Ala Cln Val Thr Val Arg Ile Gly His Asn Val His Leu Glu Leu
4032      21075      21080      21085
4033 Pro Tyr Lys Gly Lys Pro Lys Pro Ser Ile Ser Trp Leu Lys Asp Gly
E--> 4034  21090      21095      21100      2
4035 Leu Pro Leu Lys Glu Ser Glu Phe Val Arg Phe Ser Lys Thr Glu Asn
E--> 4036 1105      21110      21115      21120
4037 Lys Ile Thr Leu Ser Ile Lys Asn Ala Lys Lys Glu His Gly Gly Lys
4038      21125      21130      21135
4039 Tyr Thr Val Ile Leu Asp Asn Ala Val Cys Arg Ile Ala Val Pro Ile
4040      21140      21145      21150
4041 Thr Val Ile Thr Leu Gly Pro Pro Ser Lys Pro Lys Gly Pro Ile Arg
4042      21155      21160      21165
4043 Phe Asp Glu Ile Lys Ala Asp Ser Val Ile Leu Ser Trp Asp Val Pro
E--> 4044  21170      21175      21180      2
4045 Glu Asp Asn Gly Gly Glu Ile Thr Cys Tyr Ser Ile Glu Lys Arg
E--> 4046 1185      21190      21195      21200
4047 Glu Thr Ser Gln Thr Asn Trp Lys Met Val Cys Ser Ser Val Ala Arg
4048      21205      21210      21215
4049 Thr Thr Phe Iys Val Pro Asn Leu Val Lys Asp Ala Glu Tyr Gln Phe
4050      21220      21225      21230
4051 Arg Val Arg Ala Glu Asn Arg Tyr Gly Val Ser Gln Pro Leu Val Ser
4052      21235      21240      21245
4053 Ser Ile Ile Val Ala Lys His Gln Phe Arg Ile Pro Gly Pro Pro Gly
E--> 4054  21250      21255      21260      2
4055 Lys Pro Val Ile Tyr Asn Val Thr Ser Asp Gly Met Ser Leu Thr Trp
E--> 4056 1265      21270      21275      21280
4057 Asp Ala Pro Val Tyr Asp Gly Gly Ser Glu Val Thr Gly Phe His Val
4058      21285      21290      21295
4059 Glu Lys Lys Glu Arg Asn Ser Ile Leu Trp Gln Lys Val Asn Thr Ser
4060      21300      21305      21310
4061 Pro Ile Ser Gly Arg Glu Tyr Arg Ala Thr Gly Leu Val Glu Gly Leu
4062      21315      21320      21325
4063 Asp Tyr Gln Phe Arg Val Tyr Ala Glu Asn Ser Ala Gly Leu Ser Ser
E--> 4064  21330      21335      21340      2
4065 Pro Ser Asp Pro Ser Lys Phe Thr Leu Ala Val Ser Pro Val Asp Pro
E--> 4066 1345      21350      21355      21360
4067 Pro Gly Thr Pro Asp Tyr Ile Asp Val Thr Arg Glu Thr Ile Thr Leu
4068      21365      21370      21375
4069 Lys Trp Asn Pro Pro Leu Arg Asp Gly Gly Ser Lys Ile Val Gly Tyr
4070      21380      21385      21390

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\1759508.raw

4071 Ser Ile Glu Lys Arg Gln Gly Asn Glu Arg Trp Val Arg Cys Asn Phe
 4072 21395 21400 21405
 4073 Thr Asp Val Ser Glu Cys Gln Tyr Thr Val Thr Gly Leu Ser Pro Gly
 E--> 4074 21410 21415 21420 2
 4075 Asp Arg Tyr Glu Phe Arg Ile Ala Arg Asn Ala Val Gly Thr Ile
 E--> 4076 1425 21430 21435 21440
 4077 Ser Pro Pro Ser Gln Ser Ser Gly Ile Ile Met Thr Arg Asp Glu Asn
 4078 21445 21450 21455
 4079 Val Pro Pro Ile Val Glu Phe Gly Pro Glu Tyr Phe Asp Gly Leu Ile
 4080 21460 21465 21470
 4081 Ile Lys Ser Gly Glu Ser Leu Arg Ile Lys Ala Leu Val Gln Gly Arg
 4082 21475 21480 21485
 4083 Pro Val Pro Arg Val Thr Trp Phe Lys Asp Gly Val Glu Ile Glu Lys
 E--> 4084 21490 21495 21500 2
 4085 Arg Met Asn Met Glu Ile Thr Asn Val Leu Gly Ser Thr Ser Leu Phe
 E--> 4086 1505 21510 21515 21520
 4087 Val Arg Asp Ala Thr Arg Asp His Arg Gly Val Tyr Thr Val Glu Ala
 4088 21525 21530 21535
 4089 Lys Asn Ala Ser Gly Ser Ala Lys Ala Glu Ile Lys Val Gln
 4090 21540 21545 21550
 4091 Asp Thr Pro Gly Lys Val Val Gly Pro Ile Arg Phe Thr Asn Ile Thr
 4092 21555 21560 21565
 4093 Gly Glu Lys Met Thr Leu Trp Trp Asp Ala Pro Leu Asn Asp Gly Cys
 E--> 4094 21570 21575 21580 2
 4095 Ala Pro Ile Thr His Tyr Ile Ile Glu Lys Arg Glu Thr Ser Arg Leu
 E--> 4096 1585 21590 21595 21600
 4097 Ala Trp Ala Leu Ile Glu Asp Lys Cys Glu Ala Gln Ser Tyr Thr Ala
 4098 21605 21610 21615
 4099 Ile Lys Leu Ile Asn Gly Asn Glu Tyr Gln Phe Arg Val Ser Ala Val
 4100 21620 21625 21630
 4101 Asn Lys Phe Gly Val Gly Arg Pro Leu Asp Ser Asp Pro Val Val Ala
 4102 21635 21640 21645
 4103 Gln Ile Gln Tyr Thr Val Pro Asp Ala Pro Gly Ile Pro Glu Pro Ser
 E--> 4104 21650 21655 21660 2
 4105 Asn Ile Thr Gly Asn Ser Ile Thr Leu Thr Trp Ala Arg Pro Glu Ser
 E--> 4106 1665 21670 21675 21680
 4107 Asp Gly Gly Ser Glu Ile Gln Gln Tyr Ile Leu Glu Arg Arg Glu Lys
 4108 21685 21690 21695
 4109 Lys Ser Thr Arg Trp Val Lys Val Ile Ser Lys Arg Pro Ile Ser Glu
 4110 21700 21705 21710
 4111 Thr Arg Phe Lys Val Thr Gly Leu Thr Glu Gly Asn Glu Tyr Glu Phe
 4112 21715 21720 21725
 4113 His Val Met Ala Glu Asn Ala Gly Val Gly Pro Ala Ser Gly Ile
 E--> 4114 21730 21735 21740 2
 4115 Ser Arg Leu Ile Lys Cys Arg Glu Pro Val Asn Pro Pro Gly Pro Pro
 E--> 4116 1745 21750 21755 21760
 4117 Thr Val Val Lys Val Thr Asp Thr Ser Lys Thr Thr Val Ser Leu Glu
 4118 21765 21770 21775
 4119 Trp Ser Lys Pro Val Phe Asp Gly Gly Met Glu Ile Ile Gly Tyr Ile

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

4120 21780 21785 21790
4121 Ile Glu Met Cys Lys Thr Asp Leu Gly Asp Trp His Lys Val Asn Ala
4122 21795 21800 21805
4123 Glu Ala Cys Val Lys Thr Arg Tyr Thr Val Thr Asp Leu Gln Ala Gly
E--> 4124 21810 21815 21820 2
4125 Glu Glu Tyr Lys Phe Arg Val Ser Ala Ile Asn Gly Ala Gly Lys Gly
E--> 4126 1825 .. 21830 21835 21840
4127 Asp Ser Cys Glu Val Thr Gly Thr Ile Lys Ala Val Asp Arg Leu Thr
4128 21845 21850 21855
4129 Ala Pro Glu Leu Asp Ile Asp Ala Asn Phe Lys Gln Thr His Val Val
4130 21860 21865 21870
4131 Arg Ala Gly Ala Ser Ile Arg Leu Phe Ile Ala Tyr Gln Gly Arg Pro
4132 21875 21880 21885
4133 Thr Pro Thr Ala Val Trp Ser Lys Pro Asp Ser Asn Leu Ser Leu Arg
E--> 4134 21890 21895 21900 2
4135 Ala Asp Ile His Thr Thr Asp Ser Phe Ser Thr Leu Thr Val Glu Asn
E--> 4136 1905 21910 21915 21920
4137 Cys Asn Arg Asn Asp Ala Gly Lys Tyr Thr Leu Thr Val Glu Asn Asn
4138 21925 21930 21935
4139 Ser Gly Ser Lys Ser Ile Thr Phe Thr Val Lys Val Leu Asp Thr Pro
4140 21940 21945 21950
4141 Gly Pro Pro Gly Pro Ile Thr Phe Lys Asp Val Thr Arg Gly Ser Ala
4142 21955 21960 21965
4143 Thr Leu Met Trp Asp Ala Pro Leu Leu Asp Gly Gly Ala Arg Ile His
E--> 4144 21970 21975 21980 2
4145 His Tyr Val Val Glu Lys Arg Glu Ala Ser Arg Arg Ser Trp Gln Val
E--> 4146 1985 21990 21995 22000
4147 Ile Ser Glu Lys Cys Thr Arg Gln Ile Phe Lys Val Asn Asp Leu Ala
4148 22005 22010 22015
4149 Glu Gly Val Pro Tyr Tyr Phe Arg Val Ser Ala Val Asn Glu Tyr Gly
4150 22020 22025 22030
4151 Val Gly Glu Pro Tyr Glu Met Pro Glu Pro Ile Val Ala Thr Glu Gln
4152 22035 22040 22045
4153 Pro Ala Pro Pro Arg Arg Leu Asp Val Val Asp Thr Ser Lys Ser Ser
E--> 4154 22050 22055 22060 2
4155 Ala Val Leu Ala Trp Leu Lys Pro Asp His Asp Gly Gly Ser Arg Ile
E--> 4156 2065 22070 22075 22080
4157 Thr Gly Tyr Leu Leu Glu Met Arg Gln Lys Gly Ser Asp Leu Trp Val
4158 22085 22090 22095
4159 Glu Ala Gly His Thr Lys Gln Leu Thr Phe Thr Val Glu Arg Leu Val
4160 22100 22105 22110
4161 Glu Lys Thr Glu Tyr Glu Phe Arg Val Lys Ala Lys Asn Asp Ala Gly
4162 22115 22120 22125
4163 Tyr Ser Glu Pro Arg Glu Ala Phe Ser Ser Val Ile Ile Lys Glu Pro
E--> 4164 22130 22135 22140 2
4165 Gln Ile Glu Pro Thr Ala Asp Leu Thr Gly Ile Thr Asn Gln Leu Ile
E--> 4166 2145 22150 22155 22160
4167 Thr Cys Lys Ala Gly Ser Pro Phe Thr Ile Asp Val Pro Ile Ser Gly
4168 22165 22170 22175

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

4169 Arg Pro Ala Pro Lys Val Thr Trp Lys Leu Glu Glu Met Arg Leu Lys
4170 22180 22185 22190
4171 Glu Thr Asp Arg Val Ser Ile Thr Thr Lys Asp Arg Thr Thr Leu
4172 22195 22200 22205
4173 Thr Val Lys Asp Ser Met Arg Gly Asp Ser Gly Arg Tyr Phe Leu Thr
E--> 4174 22210 22215 22220 2
4175 Leu Glu Asn Thr Ala Gly Val Lys Thr Phe Ser Val Thr Val Val Val
E--> 4176 22225 22230 22235 22240
4177 Ile Gly Arg Pro Gly Pro Val Thr Gly Pro Ile Glu Val Ser Ser Val
4178 22245 22250 22255
4179 Ser Ala Glu Ser Cys Val Leu Ser Trp Gly Glu Pro Lys Asp Gly Gly
4180 22260 22265 22270
4181 Gly Thr Glu Ile Thr Asn Tyr Ile Val Glu Lys Arg Glu Ser Gly Thr
4182 22275 22280 22285
4183 Thr Ala Trp Gin Leu Val Asn Ser Ser Val Lys Arg Thr Gln Ile Lys
E--> 4184 22290 22295 22300 2
4185 Val Thr His Leu Thr Lys Tyr Met Glu Tyr Ser Phe Arg Val Ser Ser
E--> 4186 2305 22310 22315 22320
4187 Glu Asn Arg Phe Gly Val Ser Lys Pro Leu Glu Ser Ala Pro Ile Ile
4188 22325 22330 22335
4189 Ala Glu His Pro Phe Val Pro Pro Ser Ala Pro Thr Arg Pro Glu Val
4190 22340 22345 22350
4191 Tyr His Val Ser Ala Asn Ala Met Ser Ile Arg Trp Glu Glu Pro Tyr
4192 22355 22360 22365
4193 His Asp Gly Gly Ser Lys Ile Ile Gly Tyr Trp Val Glu Lys Lys Glu
E--> 4194 22370 22375 22380 2
4195 Arg Asn Thr Ile Leu Trp Val Lys Glu Asn Lys Val Pro Cys Leu Glu
E--> 4196 2385 22390 22395 22400
4197 Cys Asn Tyr Lys Val Thr Gly Leu Val Glu Gly Leu Glu Tyr Gln Phe
4198 22405 22410 22415
4199 Arg Thr Tyr Ala Leu Asn Ala Ala Gly Val Ser Lys Ala Ser Gln Ala
4200 22420 22425 22430
4201 Ser Arg Pro Ile Met Ala Glu Asn Pro Val Asp Ala Pro Gly Arg Pro
4202 22435 22440 22445
4203 Glu Val Thr Asp Val Thr Arg Ser Thr Val Ser Leu Ile Trp Ser Ala
E--> 4204 22450 22455 22460 2
4205 Pro Ala Tyr Asp Gly Gly Ser Lys Val Val Gly Tyr Ile Ile Glu Arg
E--> 4206 2465 22470 22475 22480
4207 Lys Pro Val Ser Glu Val Gly Asp Gly Arg Trp Leu Lys Cys Asn Tyr
4208 22485 22490 22495
4209 Thr Ile Val Ser Asp Asn Phe Phe Thr Val Thr Ala Leu Ser Glu Gly
4210 22500 22505 22510
4211 Asp Thr Tyr Glu Phe Arg Val Leu Ala Lys Asn Ala Ala Gly Val Ile
4212 22515 22520 22525
4213 Ser Lys Gly Ser Glu Ser Thr Gly Pro Val Thr Cys Arg Asp Glu Tyr
E--> 4214 22530 22535 22540 2
4215 Ala Pro Pro Lys Ala Glu Leu Asp Ala Arg Leu His Gly Asp Leu Val
E--> 4216 2545 22550 22555 22560
4217 Thr Ile Arg Ala Gly Ser Asp Leu Val Leu Asp Ala Ala Val Gly Gly

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

4218	22565	22570	22575
4219	Lys Pro Glu Pro Lys Ile Ile Trp Thr Lys Gly Asp Lys Glu Leu Asp		
4220	22580	22585	22590
4221	Leu Cys Glu Lys Val Ser Leu Gln Tyr Thr Gly Lys Arg Ala Thr Ala		
4222	22595	22600	22605
4223	Val Ile Lys Phe Cys Asp Arg Ser Asp Ser Gly Lys Tyr Thr Leu Thr		
E--> 4224	22610	22615	22620
	22620		2
4225	Val Lys Asn Ala Ser Gly Thr Lys Ala Val Ser Val Met Val Lys Val		
E--> 4226	22625	22630	22635
	22635		22640
4227	Leu Asp Ser Pro Gly Pro Cys Gly Lys Leu Thr Val Ser Arg Val Thr		
4228	22645	22650	22655
4229	Gln Glu Lys Cys Thr Leu Ala Trp Ser Leu Pro Gln Glu Asp Gly Gly		
4230	22660	22665	22670
4231	Ala Glu Ile Thr His Tyr Ile Val Glu Arg Arg Glu Thr Ser Arg Leu		
4232	22675	22680	22685
4233	Asn Trp Val Ile Val Glu Gly Glu Cys Pro Thr Leu Ser Tyr Val Val		
E--> 4234	22690	22695	22700
	22700		2
4235	Thr Arg Leu Ile Lys Asn Asn Glu Tyr Ile Phe Arg Val Arg Ala Val		
E--> 4236	22705	22710	22715
	22715		22720
4237	Asn Lys Tyr Gly Pro Gly Val Pro Val Glu Ser Glu Pro Ile Val Ala		
4238	22725	22730	22735
4239	Arg Asn Ser Phe Thr Ile Pro Ser Pro Pro Gly Ile Pro Glu Glu Val		
4240	22740	22745	22750
4241	Gly Thr Gly Lys Glu His Ile Ile Gln Trp Thr Lys Pro Glu Ser		
4242	22755	22760	22765
4243	Asp Gly Gly Asn Glu Ile Ser Asn Tyr Leu Val Asp Lys Arg Glu Lys		
E--> 4244	22770	22775	22780
	22780		2
4245	Glu Ser Leu Arg Trp Thr Arg Val Asn Lys Asp Tyr Val Val Tyr Asp		
E--> 4246	22785	22790	22795
	22795		22800
4247	Thr Arg Leu Lys Val Thr Ser Leu Met Glu Gly Cys Asp Tyr Gln Phe		
4248	22805	22810	22815
4249	Arg Val Thr Ala Val Asn Ala Ala Gly Asn Ser Glu Pro Ser Glu Arg		
4250	22820	22825	22830
4251	Ser Asn Phe Ile Ser Cys Arg Glu Pro Ser Tyr Thr Pro Gly Pro Pro		
4252	22835	22840	22845
4253	Ser Ala Pro Arg Val Val Asp Thr Thr Lys His Ser Ile Ser Leu Ala		
E--> 4254	22850	22855	22860
	22860		2
4255	Trp Thr Lys Pro Met Tyr Asp Gly Gly Thr Asp Ile Val Gly Tyr Val		
E--> 4256	22865	22870	22875
	22875		22880
4257	Leu Gln Met Gln Glu Lys Asp Thr Asp Gln Trp Tyr Arg Val His Thr		
4258	22885	22890	22895
4259	Asn Ala Thr Ile Arg Asn Thr Glu Phe Thr Val Pro Asp Leu Lys Met		
4260	22900	22905	22910
4261	Gly Gln Lys Tyr Ser Phe Arg Val Ala Ala Val Asn Val Lys Gly Met		
4262	22915	22920	22925
4263	Ser Glu Tyr Ser Glu Ser Ile Ala Glu Ile Glu Pro Val Glu Arg Ile		
E--> 4264	22930	22935	22940
	22940		2
4265	Glu Ile Pro Asp Leu Glu Leu Ala Asp Asp Leu Lys Lys Thr Val Thr		
E--> 4266	2945	22950	22955
	22955		22960

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

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Output Set: N:\CRF3\01292001\I759508.raw

4267 Ile Arg Ala Gly Ala Ser Leu Arg Leu Met Val Ser Val Ser Gly Arg
4268 22965 22970 22975
4269 Pro Pro Pro Val Ile Thr Trp Ser Lys Gln Gly Ile Asp Leu Ala Ser
4270 22980 22985 22990
4271 Arg Ala Ile Ile Asp Thr Thr Glu Ser Tyr Ser Leu Leu Ile Val Asp
4272 22995 23000 23005
4273 Lys Val Asn Arg Tyr Asp Ala Gly Lys Tyr Thr Ile Glu Ala Glu Asn
E--> 4274 23010 23015 23020 2
4275 Gln Ser Gly Lys Lys Ser Ala Thr Val Leu Val Lys Val Tyr Asp Thr
E--> 4276 3025 23030 23035 23040
4277 Pro Gly Pro Cys Pro Ser Val Lys Val Lys Glu Val Ser Arg Asp Ser
4278 23045 23050 23055
4279 Val Thr Ile Thr Trp Glu Ile Pro Thr Ile Asp Gly Gly Ala Pro Ile
4280 23060 23065 23070
4281 Asn Asn Tyr Ile Val Glu Lys Arg Glu Ala Ala Met Arg Ala Phe Lys
4282 23075 23080 23085
4283 Thr Val Thr Thr Lys Cys Ser Lys Thr Leu Tyr Arg Ile Ser Gly Leu
E--> 4284 23090 23095 23100 2
4285 Val Glu Gly Thr Met His Tyr Phe Arg Val Leu Pro Glu Asn Ile Tyr
E--> 4286 3105 23110 23115 23120
4287 Gly Ile Gly Glu Pro Cys Glu Thr Ser Asp Ala Val Leu Val Ser Glu
4288 23125 23130 23135
4289 Val Pro Leu Val Pro Ala Lys Leu Glu Val Val Asp Val Thr Lys Ser
4290 23140 23145 23150
4291 Thr Val Thr Leu Ala Trp Glu Lys Pro Leu Tyr Asp Gly Gly Ser Arg
4292 23155 23160 23165
4293 Leu Thr Gly Tyr Val Leu Glu Ala Cys Lys Ala Gly Thr Glu Arg Trp
E--> 4294 23170 23175 23180 2
4295 Met Lys Val Val Thr Leu Lys Pro Thr Val Leu Glu His Thr Val Thr
E--> 4296 3185 23190 23195 23200
4297 Ser Leu Asn Glu Gly Glu Tyr Leu Phe Arg Ile Arg Ala Glu Asn
4298 23205 23210 23215
4299 Glu Lys Gly Val Ser Glu Pro Arg Glu Thr Val Thr Ala Val Thr Val
4300 23220 23225 23230
4301 Gln Asp Leu Arg Val Leu Pro Thr Ile Asp Leu Ser Thr Met Pro Gln
4302 23235 23240 23245
4303 Lys Thr Ile His Val Pro Ala Gly Arg Pro Val Glu Leu Val Ile Pro
E--> 4304 23250 23255 23260 2
4305 Ile Ala Gly Arg Pro Pro Ala Ala Ser Trp Phe Phe Ala Gly Ser
E--> 4306 3265 23270 23275 23280
4307 Lys Leu Arg Glu Ser Glu Arg Val Thr Val Glu Thr His Thr Lys Val
4308 23285 23290 23295
4309 Ala Lys Leu Thr Ile Arg Glu Thr Thr Ile Arg Asp Thr Gly Glu Tyr
4310 23300 23305 23310
4311 Thr Leu Glu Leu Lys Asn Val Thr Gly Thr Ser Glu Thr Ile Lys
4312 23315 23320 23325
4313 Val Ile Ile Leu Asp Lys Pro Gly Pro Pro Thr Gly Pro Ile Lys Ile
E--> 4314 23330 23335 23340 2
4315 Asp Glu Ile Asp Ala Thr Ser Ile Thr Ile Ser Trp Glu Pro Pro Glu

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

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E--> 4316 3345          23350          23355          23360
4317 Leu Asp Gly Gly Ala Pro Leu Ser Gly Tyr Val Val Glu Gln Arg Asp
4318          23365          23370          23375
4319 Ala His Arg Pro Gly Trp Leu Pro Val Ser Glu Ser Val Thr Arg Ser
4320          23380          23385          23390
4321 Thr Phe Lys Phe Thr Arg Leu Thr Glu Gly Asn Glu Tyr Val Phe Arg
4322          23395          23400          23405
4323 Val Ala Ala Thr Asn Arg Phe Gly Ile Gly Ser Tyr Leu Gln Ser Glu
E--> 4324          23410          23415          23420          2
4325 Val Ile Glu Cys Arg Ser Ser Ile Arg Ile Pro Gly Pro Pro Glu Thr
E--> 4326 3425          23430          23435          23440
4327 Leu Gln Ile Phe Asp Val Ser Arg Asp Gly Met Thr Leu Thr Trp Tyr
4328          23445          23450          23455
4329 Pro Pro Glu Asp Asp Gly Gly Ser Glu Val Thr Gly Tyr Ile Val Gln
4330          23460          23465          23470
4331 Arg Lys Glu Val Arg Ala Asp Arg Trp Val Arg Val Asn Lys Val Pro
4332          23475          23480          23485
4333 Val Thr Met Thr Arg Tyr Arg Ser Thr Gly Leu Thr Glu Gly Leu Gln
E--> 4334          23490          23495          23500          2
4335 Tyr Glu His Arg Val Thr Ala Ile Asn Ala Arg Gly Ser Gly Lys Pro
E--> 4336 3505          23510          23515          23520
4337 Ser Arg Pro Ser Lys Pro Ile Val Ala Met Asp Pro Ile Ala Pro Pro
4338          23525          23530          23535
4339 Gly Lys Pro Gln Asn Pro Arg Val Thr Asp Thr Thr Arg Thr Ser Val
4340          23540          23545          23550
4341 Ser Leu Ala Trp Ser Val Pro Glu Asp Glu Gly Ser Lys Val Thr
4342          23555          23560          23565
4343 Gly Tyr Leu Ile Glu Met Gln Lys Val Asp Gln His Glu Trp Thr Lys
E--> 4344          23570          23575          23580          2
4345 Cys Asn Thr Thr Pro Thr Lys Ile Arg Glu Tyr Thr Leu Thr His Leu
E--> 4346 3585          23590          23595          23600
4347 Pro Gln Gly Ala Glu Tyr Arg Phe Arg Val Leu Ala Cys Asn Ala Gly
4348          23605          23610          23615
4349 Gly Pro Gly Glu Pro Ala Glu Val Pro Gly Thr Val Lys Val Thr Glu
4350          23620          23625          23630
4351 Met Leu Glu Tyr Pro Asp Tyr Glu Leu Asp Glu Arg Tyr Gln Glu Gly
4352          23635          23640          23645
4353 Ile Phe Val Arg Gln Gly Val Ile Arg Leu Thr Ile Pro Ile Lys
E--> 4354          23650          23655          23660          2
4355 Gly Lys Pro Phe Pro Ile Cys Lys Trp Thr Lys Glu Gly Gln Asp Ile
E--> 4356 3665          23670          23675          23680
4357 Ser Lys Arg Ala Met Ile Ala Thr Ser Glu Thr His Thr Glu Leu Val
4358          23685          23690          23695
4359 Ile Lys Glu Ala Asp Arg Gly Asp Ser Gly Thr Tyr Asp Leu Val Leu
4360          23700          23705          23710
4361 Glu Asn Lys Cys Gly Lys Lys Ala Val Tyr Ile Lys Val Arg Val Ile
4362          23715          23720          23725
4363 Gly Ser Pro Asn Ser Pro Glu Gly Pro Leu Glu Tyr Asp Asp Ile Gln
E--> 4364          23730          23735          23740          2

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

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4365 Val Arg Ser Val Arg Val Ser Trp Arg Pro Pro Ala Asp Asp Gly Gly
E--> 4366 3745 23750 23755 23760
4367 Ala Asp Ile Leu Gly Tyr Ile Leu Glu Arg Arg Glu Val Pro Lys Ala
4368 23765 23770 23775
4369 Ala Trp Tyr Thr Ile Asp Ser Arg Val Arg Gly Thr Ser Leu Val Val
4370 23780 23785 23790
4371 Lys Gly Leu Lys Glu Asn Val Glu Tyr His Phe Arg Val Ser Ala Glu
4372 23795 23800 23805
4373 Asn Gln Phe Gly Ile Ser Lys Pro Leu Lys Ser Glu Glu Pro Val Thr
E--> 4374 23810 23815 23820 2
4375 Pro Lys Thr Pro Leu Asn Pro Pro Glu Pro Pro Ser Asn Pro Pro Glu
E--> 4376 3825 23830 23835 23840
4377 Val Leu Asp Val Thr Lys Ser Ser Val Ser Leu Ser Trp Ser Arg Pro
4378 23845 23850 23855
4379 Lys Asp Asp Gly Gly Ser Arg Val Thr Gly Tyr Tyr Ile Glu Arg Lys
4380 23860 23865 23870
4381 Glu Thr Ser Thr Asp Lys Trp Val Arg His Asn Lys Thr Gln Ile Thr
4382 23875 23880 23885
4383 Thr Thr Met Tyr Thr Val Thr Gly Leu Val Pro Asp Ala Glu Tyr Gln
E--> 4384 23890 23895 23900 2
4385 Phe Arg Ile Ile Ala Gln Asn Asp Val Gly Leu Ser Glu Thr Ser Pro
E--> 4386 3905 23910 23915 23920
4387 Ala Ser Glu Pro Val Val Cys Lys Asp Pro Phe Asp Lys Pro Ser Gln
4388 23925 23930 23935
4389 Pro Gly Glu Ile Glu Ile Leu Ser Ile Ser Lys Asp Ser Val Thr Leu
4390 23940 23945 23950
4391 Gln Trp Glu Lys Pro Glu Cys Asp Gly Gly Lys Glu Ile Leu Gly Tyr
4392 23955 23960 23965
4393 Trp Val Glu Tyr Arg Gln Ser Gly Asp Ser Ala Trp Lys Lys Ser Asn
E--> 4394 23970 23975 23980 2
4395 Lys Glu Arg Ile Lys Asp Lys Gln Phe Thr Ile Gly Gly Leu Leu Glu
E--> 4396 3985 23990 23995 24000
4397 Ala Thr Glu Tyr Glu Phe Arg Val Phe Ala Glu Asn Glu Thr Gly Leu
4398 24005 24010 24015
4399 Ser Arg Pro Arg Arg Thr Ala Met Ser Ile Lys Thr Lys Leu Thr Ser
4400 24020 24025 24030
4401 Gly Glu Ala Pro Gly Ile Arg Lys Glu Met Lys Asp Val Thr Thr Lys
4402 24035 24040 24045
4403 Leu Gln Glu Ala Ala Gln Leu Ser Cys Gln Ile Val Gln Arg Pro Leu
E--> 4404 24050 24055 24060 2
4405 Pro Asp Ile Lys Trp Tyr Arg Phe Gly Lys Glu Ile Ile Gln Ser Arg
E--> 4406 4065 24070 24075 24080
4407 Lys Tyr Lys Met Ser Ser Asp Gly Arg Thr His Thr Leu Thr Val Met
4408 24085 24090 24095
4409 Thr Glu Glu Gln Glu Asp Glu Gly Val Tyr Thr Cys Ile Ala Thr Asn
4410 24100 24105 24110
4411 Glu Val Gln Glu Val Glu Thr Ser Ser Lys Leu Leu Gln Ala Thr
4412 24115 24120 24125
4413 Pro Gln Phe His Pro Gly Tyr Pro Leu Lys Glu Lys Tyr Tyr Gly Ala

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

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Output Set: N:\CRF3\01292001\I759508.raw

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E--> 4414 24130 24135 24140 2
4415 Val Gly Ser Thr Leu Arg Leu His Val Met Tyr Ile Gly Arg Pro Val
E--> 4416 4145 24150 24155 24160
4417 Pro Ala Met Thr Trp Phe His Gly Gln Lys Leu Gln Asn Ser Glu
4418 24165 24170 24175
4419 Asn Ile Thr Ile Glu Asn Thr Glu His Tyr Thr His Leu Val Met Lys
4420 24180 24185 24190
4421 Asn Val Gln Arg Lys Thr His Ala Gly Lys Tyr Lys Val Gln Leu Ser
4422 24195 24200 24205
4423 Asn Val Phe Gly Thr Val Asp Ala Ile Leu Asp Val Glu Ile Gln Asp
E--> 4424 24210 24215 24220 2
4425 Lys Pro Asp Lys Pro Thr Gly Pro Ile Val Ile Glu Ala Leu Leu Lys
E--> 4426 4225 24230 24235 24240
4427 Asn Ser Ala Val Ile Ser Trp Lys Pro Pro Ala Asp Asp Gly Gly Ser
4428 24245 24250 24255
4429 Trp Ile Thr Asn Tyr Val Val Glu Lys Cys Glu Ala Lys Glu Gly Ala
4430 24260 24265 24270
4431 Glu Trp Gln Leu Val Ser Ser Ala Ile Ser Val Thr Thr Cys Arg Ile
4432 24275 24280 24285
4433 Val Asn Leu Thr Glu Asn Ala Gly Tyr Tyr Phe Arg Val Ser Ala Gln
E--> 4434 24290 24295 24300 2
4435 Asn Thr Phe Gly Ile Ser Asp Pro Ile Glu Val Ser Ser Val Val Ile
E--> 4436 4305 24310 24315 24320
4437 Ile Lys Ser Pro Phe Glu Lys Pro Gly Ala Pro Gly Lys Pro Thr Ile
4438 24325 24330 24335
4439 Thr Ala Val Thr Lys Asp Ser Cys Val Val Ala Trp Lys Pro Pro Ala
4440 24340 24345 24350
4441 Ser Asp Gly Gly Ala Lys Ile Arg Asn Tyr Tyr Leu Glu Lys Arg Glu
4442 24355 24360 24365
4443 Lys Lys Gln Asn Lys Trp Ile Ser Val Thr Thr Glu Glu Ile Arg Glu
E--> 4444 24370 24375 24380 2
4445 Thr Val Phe Ser Val Lys Asn Ile Ile Glu Gly Leu Glu Tyr Glu Phe
E--> 4446 4385 24390 24395 24400
4447 Arg Val Lys Cys Glu Asn Leu Gly Gly Glu Ser Glu Trp Ser Glu Ile
4448 24405 24410 24415
4449 Ser Glu Pro Ile Thr Pro Lys Ser Asp Val Pro Ile Gln Ala Pro His
4450 24420 24425 24430
4451 Phe Lys Glu Glu Leu Arg Asn Leu Asn Val Arg Tyr Gln Ser Asn Ala
4452 24435 24440 24445
4453 Thr Leu Val Cys Lys Val Thr Gly His Pro Lys Pro Ile Val Lys Trp
E--> 4454 24450 24455 24460 2
4455 Tyr Arg Gln Gly Lys Glu Ile Ile Ala Asp Gly Leu Lys Tyr Arg Ile
E--> 4456 4465 24470 24475 24480
4457 Gln Glu Phe Lys Gly Tyr His Gln Leu Ile Ala Ser Val Thr
4458 24485 24490 24495
4459 Asp Asp Asp Ala Thr Val Tyr Gln Val Arg Ala Thr Asn Gln Gly Gly
4460 24500 24505 24510
4461 Ser Val Ser Gly Thr Ala Ser Ile Glu Val Glu Val Pro Ala Lys Ile
4462 24515 24520 24525

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RAW SEQUENCE LISTING DATE: 01/29/2001
 PATENT APPLICATION: US/09/759,508 TIME: 13:24:54

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4463 His Leu Pro Lys Thr Leu Glu Gly Met Gly Ala Val His Ala Leu Arg
 E--> 4464 24530 24535 24540 2
 4465 Gly Glu Val Val Ser Ile Lys Ile Pro Phe Ser Gly Lys Pro Asp Pro
 E--> 4466 4545 24550 24555 24560
 4467 Val Ile Thr Trp Gln LYS Gly Gln Asp Leu Ile Asp Asn Asn Gly His
 4468 24565 24570 24575
 4469 Tyr Gln Val Ile Val Thr Arg Ser Phe Thr Ser Leu Val Phe Pro' Asn
 4470 24580 24585 24590
 4471 Gly Val Glu Arg Lys Asp Ala Gly Phe Tyr Val Val Cys Ala Lys Asn
 4472 24595 24600 24605
 4473 Arg Phe Gly Ile Asp Gln Lys Thr Val Glu Leu Asp Val Ala Asp Val
 E--> 4474 24610 24615 24620 2
 4475 Pro Asp Pro Pro Arg Gly Val Lys Val Ser Asp Ala Ser Arg Asp Ser
 E--> 4476 4625 24630 24635 24640
 4477 Val Asn Leu Thr Trp Thr Glu Pro Ala Ser Asp Gly Ser Lys Ile
 4478 24645 24650 24655
 4479 Thr Asn Tyr Ile Val Glu Lys Cys Ala Thr Thr Ala Glu Arg Trp Leu
 4480 24660 24665 24670
 4481 Arg Val Gly Gln Ala Arg Glu Thr Arg Tyr Thr Val Ile Asn Leu Phe
 4482 24675 24680 24685
 4483 Gly Lys Thr Ser Tyr Gln Phe Arg Val Ile Ala Glu Asn Lys Phe Gly
 E--> 4484 24690 24695 24700 2
 4485 Leu Ser Lys Pro Ser Glu Pro Ser Glu Pro Thr Ile Thr Lys Glu Asp
 E--> 4486 4705 24710 24715 24720
 4487 Lys Thr Arg Ala Met Asn Tyr Asp Glu Glu Val Asp Glu Thr Arg Glu
 4488 24725 24730 24735
 4489 Val Ser Met Thr Lys Ala Ser His Ser Ser Thr Lys Glu Leu Tyr Glu
 4490 24740 24745 24750
 4491 Lys Tyr Met Ile Ala Glu Asp Leu Gly Arg Gly Glu Phe Gly Ile Val
 4492 24755 24760 24765
 4493 His Arg Cys Val Glu Thr Ser Ser Lys Lys Thr Tyr Met Ala Lys Phe
 E--> 4494 24770 24775 24780 2
 4495 Val Lys Val Lys Gly Thr Asp Gln Val Leu Val Lys Lys Gln Ile Ser
 E--> 4496 4785 24790 24795 24800
 4497 Ile Leu Asn Ile Ala Arg His Arg Asn Ile Leu His Leu His Glu Ser
 4498 24805 24810 24815
 4499 Phe Glu Ser Met Glu Glu Leu Val Met Ile Phe Glu Phe Ile Ser Gly
 4500 24820 24825 24830
 4501 Leu Asp Ile Phe Glu Arg Ile Asn Thr Ser Ala Phe Glu Leu Asn Glu
 4502 24835 24840 24845
 4503 Arg Glu Ile Val Ser Tyr Val His Gln Val Cys Glu Ala Leu Gln Phe
 E--> 4504 24850 24855 24860 2
 4505 Leu His Ser His Asn Ile Gly His Phe Asp Ile Arg Pro Glu Asn Ile
 E--> 4506 4865 24870 24875 24880
 4507 Ile Tyr Gln Thr Arg Arg Ser Ser Thr Ile Lys Ile Glu Phe Gly
 4508 24885 24890 24895
 4509 Gln Ala Arg Gln Leu Lys Pro Gly Asp Asn Phe Arg Leu Leu Phe Thr
 4510 24900 24905 24910
 4511 Ala Pro Glu Tyr Tyr Ala Pro Glu Val His Gln His Asp Val Val Ser

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PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

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4512      24915      24920      24925
4513 Thr Ala Thr Asp Met Trp Ser Leu Gly Thr Leu Val Tyr Val Leu Leu
E--> 4514 24930 24935 24940 2
4515 Ser Gly Ile Asn Pro Phe Leu Ala Glu Thr Asn Gln Gln Ile Ile Glu
E--> 4516 4945 24950 24955 24960
4517 Asn Ile Met Asn Ala Glu Tyr Thr Phe Asp Glu Ala Phe Lys Glu
4518      24965      24970      24975
4519 Ile Ser Ile Glu Ala Met Asp Phe Val Asp Arg Leu Leu Val Lys Glu
4520      24980      24985      24990
4521 Arg Lys Ser Arg Met Thr Ala Ser Glu Ala Leu Gln His Pro Trp Leu
4522      24995      25000      25005
4523 Lys Gln Lys Ile Glu Arg Val Ser Thr Lys Val Ile Arg Thr Leu Lys
E--> 4524 25010 25015 25020 2
4525 His Arg Arg Tyr Tyr His Thr Leu Ile Lys Lys Asp Leu Asn Met Val
E--> 4526 5025 25030 25035 25040
4527 Val Ser Ala Ala Arg Ile Ser Cys Gly Gly Ala Ile Arg Ser Gln Lys
4528      25045      25050      25055
4529 Gly Val Ser Val Ala Lys Val Lys Val Ala Ser Ile Glu Ile Gly Pro
4530      25060      25065      25070
4531 Val Ser Gly Gln Ile Met His Ala Val Gly Glu Gly Gly His Val
4532      25075      25080      25085
4533 Lys Tyr Val Cys Lys Ile Glu Asn Tyr Asp Gln Ser Thr Gln Val Thr
E--> 4534 25090 25095 25100 2
4535 Trp Tyr Phe Gly Val Arg Gln Leu Glu Asn Ser Glu Lys Tyr Glu Ile
E--> 4536 5105 25110 25115 25120
4537 Thr Tyr Glu Asp Gly Val Ala Ile Leu Tyr Val Lys Asp Ile Thr Lys
4538      25125      25130      25135
4539 Leu Asp Asp Gly Thr Tyr Arg Cys Lys Val Val Asn Asp Tyr Gly Glu
4540      25140      25145      25150
4541 Asp Ser Ser Tyr Ala Glu Leu Phe Val Lys Gly Val Arg Glu Val Tyr
4542      25155      25160      25165
4543 Asp Tyr Tyr Cys Arg Arg Thr Met Lys Lys Ile Lys Arg Arg Thr Asp
E--> 4544 25170 25175 25180 2
4545 Thr Met Arg Leu Leu Glu Arg Pro Pro Glu Phe Thr Leu Pro Leu Tyr
E--> 4546 5185 25190 25195 25200
4547 Asn Lys Thr Ala Tyr Val Gly Glu Asn Val Arg Phe Gly Val Thr Ile
4548      25205      25210      25215
4549 Thr Val His Pro Glu Pro His Val Thr Trp Tyr Lys Ser Gly Cln Lys
4550      25220      25225      25230
4551 Ile Lys Pro Gly Asp Asn Asp Lys Lys Tyr Thr Phe Glu Ser Asp Lys
4552      25235      25240      25245
4553 Gly Leu Tyr Gln Leu Thr Ile Asn Ser Val Thr Thr Asp Asp Asp Ala
E--> 4554 25250 25255 25260 2
4555 Glu Tyr Thr Val Val Ala Arg Asn Lys Tyr Gly Glu Asp Ser Cys Lys
E--> 4556 5265 25270 25275 25280
4557 Ala Lys Leu Thr Val Thr Leu His Pro Pro Pro Thr Asp Ser Thr Leu
4558      25285      25290      25295
4559 Arg Pro Met Phe Lys Arg Leu Leu Ala Asn Ala Glu Cys Gln Glu Gly
4560      25300      25305      25310

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4561 Gln Ser Val Cys Phe Glu Ile Arg Val Ser Gly Ile Pro Pro Pro Thr
4562 25315 25320 25325
4563 Leu Lys Trp Glu Lys Asp Gly Gln Pro Leu Ser Leu Gly Pro Asn Ile
E--> 4564 25330 25335 25340 2
4565 Glu Ile Ile His Glu Gly Leu Asp Tyr Tyr Ala Leu His Ile Arg Asp
E--> 4566 5345 25350 25355 25360
4567 Thr Leu Pro Glu Asp Thr Gly Tyr Tyr Arg Val Thr Ala Thr Asn Thr
4568 25365 25370 25375
4569 Ala Gly Ser Thr Ser Cys Gln Ala His Leu Gln Val Glu Arg Leu Arg
4570 25380 25385 25390
4571 Tyr Lys Lys Gln Glu Phe Lys Ser Lys Glu Glu His Glu Arg His Val
4572 25395 25400 25405
4573 Gln Lys Gln Ile Asp Lys Thr Leu Arg Met Ala Glu Ile Leu Ser Gly
E--> 4574 25410 25415 25420 2
4575 Thr Glu Ser Val Pro Leu Thr Gln Val Ala Lys Glu Ala Leu Arg Glu
E--> 4576 5425 25430 25435 25440
4577 Ala Ala Val Leu Tyr Lys Pro Ala Val Ser Thr Lys Thr Val Lys Gly
4578 25445 25450 25455
4579 Glu Phe Arg Leu Glu Ile Glu Lys Lys Glu Glu Arg Lys Leu Arg
4580 25460 25465 25470
4581 Met Pro Tyr Asp Val Pro Glu Pro Arg Lys Tyr Lys Gln Thr Thr Ile
4582 25475 25480 25485
4583 Glu Glu Asp Gln Arg Ile Lys Gln Phe Val Pro Met Ser Asp Met Lys
E--> 4584 25490 25495 25500 2
4585 Trp Tyr Lys Lys Ile Arg Asp Gln Tyr Glu Met Pro Gly Lys Leu Asp
E--> 4586 5505 25510 25515 25520
4587 Arg Val Val Gln Lys Arg Pro Lys Arg Ile Arg Leu Ser Arg Trp Glu
4588 25525 25530 25535
4589 Gln Phe Tyr Val Met Pro Leu Pro Arg Ile Thr Asp Gln Tyr Arg Pro
4590 25540 25545 25550
4591 Lys Trp Arg Ile Pro Lys Leu Ser Gln Asp Asp Leu Glu Ile Val Arg
4592 25555 25560 25565
4593 Pro Ala Arg Arg Arg Thr Pro Ser Pro Asp Tyr Asp Phe Tyr Tyr Arg
E--> 4594 25570 25575 25580 2
4595 Pro Arg Arg Arg Ser Leu Gly Asp Ile Ser Asp Glu Glu Leu Leu Leu
E--> 4596 5585 25590 25595 25600
4597 Pro Ile Asp Asp Tyr Leu Ala Met Lys Arg Thr Glu Glu Glu Arg Leu
4598 25605 25610 25615
4599 Arg Leu Glu Glu Glu Leu Glu Leu Gly Phe Ser Ala Ser Pro Pro Ser
4600 25620 25625 25630
4601 Arg Ser Pro Pro His Phe Glu Leu Ser Ser Leu Arg Tyr Ser Ser Pro
4602 25635 25640 25645
4603 Gln Ala His Val Lys Val Glu Glu Thr Arg Lys Asn Phe Arg Tyr Ser
E--> 4604 25650 25655 25660 2
4605 Thr Tyr His Ile Pro Thr Lys Ala Glu Ala Ser Thr Ser Tyr Ala Glu
E--> 4606 5665 25670 25675 25680
4607 Leu Arg Glu Arg His Ala Gln Ala Ala Tyr Arg Gln Pro Lys Gln Arg
4608 25685 25690 25695
4609 Gln Arg Ile Met Ala Glu Arg Glu Asp Glu Glu Leu Leu Arg Pro Val

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

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Output Set: N:\CRF3\01292001\I759508.raw

4610	25700	25705	25710	
4611	Thr Thr Gln His Leu Ser Glu Tyr Lys Ser Glu Leu Asp Phe Met			
4612	25715	25720	25725	
4613	Ser Lys Glu Lys Ser Arg Lys Ser Arg Arg Gln Arg Glu Val			
E--> 4614	25730	25735	25740	
4615	Thr Glu Ile Thr Glu Ile Glu Glu Tyr Glu Ile Ser Lys His Ala			
E--> 4616	5745	25750	25755	25760
4617	Gln Arg Glu Ser Ser Ser Ala Ser Arg Leu Leu Arg Arg Arg Arg			
4618	25765	25770	25775	
4619	Ser Leu Ser Pro Thr Tyr Ile Glu Ileu Met Arg Pro Val Ser Glu Leu			
4620	25780	25785	25790	
4621	Ile Arg Ser Arg Pro Gln Pro Ala Glu Glu Tyr Glu Asp Asp Thr Glu			
4622	25795	25800	25805	
4623	Arg Arg Ser Pro Thr Pro Glu Arg Thr Arg Pro Arg Ser Pro Ser Pro			
E--> 4624	25810	25815	25820	
4625	Val Ser Ser Glu Arg Ser Leu Ser Arg Phe Glu Arg Ser Ala Arg Phe			
E--> 4626	5825	25830	25835	25840
4627	Asp Ile Phe Ser Arg Tyr Glu Ser Met Lys Ala Ala Leu Lys Thr Glu			
4628	25845	25850	25855	
4629	Lys Thr Ser Glu Arg Lys Tyr Glu Val Leu Ser Gin Gln Pro Phe Thr			
4630	25860	25865	25870	
4631	Leu Asp His Ala Pro Arg Ile Thr Leu Arg Met Arg Ser His Arg Val			
4632	25875	25880	25885	
4633	Pro Cys Gly Gln Asn Thr Arg Phe Ile Leu Asn Val Gin Ser Lys Pro			
E--> 4634	25890	25895	25900	
4635	Thr Ala Glu Val Lys Trp Tyr His Asn Gly Val Glu Leu Gin Glu Ser			
E--> 4636	5905	25910	25915	25920
4637	Ser Lys Ile His Tyr Thr Asn Thr Ser Gly Val Leu Thr Leu Glu Ile			
4638	25925	25930	25935	
4639	Leu Asp Cys His Thr Asp Asp Ser Gly Thr Tyr Arg Ala Val Cys Thr			
4640	25940	25945	25950	
4641	Asn Tyr Lys Gly Glu Ala Ser Asp Tyr Ala Thr Leu Asp Val Thr Gly			
4642	25955	25960	25965	
4643	Gly Asp Tyr Thr Tyr Ala Ser Gin Arg Arg Asp Glu Glu Val Pro			
E--> 4644	25970	25975	25980	
4645	Arg Ser Val Phe Pro Glu Leu Thr Arg Thr Glu Ala Tyr Ala Val Pro			
E--> 4646	5985	25990	25995	26000
4647	Ser Phe Lys Lys Thr Ser Glu Met Glu Ala Ser Ser Ser Val Arg Glu			
4648	26005	26010	26015	
4649	Val Lys Ser Gin Met Thr Glu Thr Arg Glu Ser Leu Ser Ser Tyr Glu			
4650	26020	26025	26030	
4651	His Ser Ala Ser Ala Glu Met Lys Ser Ala Ala Leu Glu Glu Lys Ser			
4652	26035	26040	26045	
4653	Leu Glu Glu Lys Ser Thr Thr Arg Lys Ile Lys Thr Thr Leu Ala Ala			
E--> 4654	26050	26055	26060	
4655	Arg Ile Leu Thr Lys Pro Arg Ser Met Thr Val Tyr Glu Gly Glu Ser			
E--> 4656	6065	26070	26075	26080
4657	Ala Arg Phe Ser Cys Asp Thr Asp Gly Glu Pro Val Pro Thr Val Thr			
4658	26085	26090	26095	

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/759,508

DATE: 01/29/2001
TIME: 13:24:54

Input Set : A:\00786.381002.SEQLIST.TXT
Output Set: N:\CRF3\01292001\I759508.raw

4659 Trp Leu Arg Lys Gly Gln Val Leu Ser Thr Ser Ala Arg His Gln Val
4660 26100 26105 26110
4661 Thr Thr Thr Lys Tyr Lys Ser Thr Phe Glu Ile Ser Ser Val Gln Ala
4662 26115 26120 26125
4663 Ser Asp Glu Gly Asn Tyr Ser Val Val Val Glu Asn Ser Glu Gly Lys
E--> 4664 26130 26135 26140 2
4665 Gln Glu Ala Glu Phe Thr Leu Thr Ile Gln Lys Ala Arg Val Thr Glu
E--> 4666 6145 26150 26155 26160
4667 Lys Ala Val Thr Ser Pro Pro Arg Val Lys Ser Pro Glu Pro Arg Val
4668 26165 26170 26175
4669 Lys Ser Pro Glu Ala Val Lys Ser Pro Lys Arg Val Lys Ser Pro Glu
4670 26180 26185 26190
4671 Pro Ser His Pro Lys Ala Val Ser Pro Thr Glu Thr Lys Pro Thr Pro
4672 26195 26200 26205
4673 Arg Glu Lys Val Glu His Leu Pro Val Ser Ala Pro Pro Lys Ile Thr
E--> 4674 26210 26215 26220 2
4675 Gln Phe Leu Lys Ala Glu Ala Ser Lys Glu Ile Ala Lys Leu Thr Cys
E--> 4676 6225 26230 26235 26240
4677 Val Val Glu Ser Ser Val Leu Arg Ala Lys Glu Val Thr Trp Tyr Lys
4678 26245 26250 26255
4679 Asp Gly Lys Lys Leu Lys Glu Asn Gly His Phe Gln Phe His Tyr Ser
4680 26260 26265 26270
4681 Ala Asp Gly Thr Tyr Glu Leu Lys Ile Asn Asn Leu Thr Glu Ser Asp
4682 26275 26280 26285
4683 Gln Gly Glu Tyr Val Cys Glu Ile Ser Gly Glu Gly Gly Thr Ser Lys
E--> 4684 26290 26295 26300 2
4685 Thr Asn Leu Gln Phe Met Gly Gln Ala Phe Lys Ser Ile His Glu Lys
E--> 4686 6305 26310 26315 26320
4687 Val Ser Lys Ile Ser Glu Thr Lys Lys Ser Asp Gln Lys Thr Thr Glu
4688 26325 26330 26335
4689 Ser Thr Val Thr Arg Lys Thr Glu Pro Lys Ala Pro Glu Pro Ile Ser
4690 26340 26345 26350
4691 Ser Lys Pro Val Ile Val Thr Gly Leu Gln Asp Thr Thr Val Ser Ser
4692 26355 26360 26365
4693 Asp Ser Val Ala Lys Phe Ala Val Lys Ala Thr Gly Glu Pro Arg Pro
E--> 4694 26370 26375 26380 2
4695 Thr Ala Ile Trp Thr Lys Asp Gly Lys Ala Ile Thr Gln Gly Gly Lys
E--> 4696 6385 26390 26395 26400
4697 Tyr Lys Leu Ser Glu Asp Lys Gly Gly Phe Leu Glu Ile His Lys
4698 26405 26410 26415
4699 Thr Asp Thr Ser Asp Ser Gly Leu Tyr Thr Cys Thr Val Lys Asn Ser
4700 26420 26425 26430
4701 Ala Gly Ser Val Ser Ser Ser Cys Lys Leu Thr Ile Lys Ala Ile Lys
4702 26435 26440 26445
4703 Asp Thr Glu Ala Gln Lys Val Ser Thr Gln Lys Thr Ser Glu Ile Thr
E--> 4704 26450 26455 26460 2
4705 Pro Gln Lys Lys Ala Val Val Gln Glu Glu Ile Ser Gln Lys Ala Leu
E--> 4706 6465 26470 26475 26480
4707 Arg Ser Glu Glu Ile Lys Met Ser Glu Ala Lys Ser Gln Glu Lys Leu

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4708	26485	26490	26495	
4709 Ala	Leu Lys Glu Glu Ala Ser Lys Val	Leu Ile Ser Glu Glu Val	Lys	
4710	26500	26505	26510	
4711 Lys Ser Ala Ala Thr Ser Leu	Glu Lys Ser Ile Val His	Glu Glu Ile		
4712	26515	26520	26525	
4713 Thr Lys Thr Ser Glu Ala Ser Glu Glu Val Arg	Thr His Ala Glu Ile			
E--> 4714	26530	26535	26540	
4715 Lys Ala Phe Ser Thr Glu Met Ser Ile Asn	Glu Gly Gln Arg Leu	Val		
E--> 4716	6545	26550	26555	26560
4717 Leu Lys Ala Asn Ile Ala Gly Ala Thr Asp Val	Lys Trp Val Leu Asn			
4718	26565	26570	26575	
4719 Gly Val Glu Leu Thr Asn Ser Glu Glu Tyr	Arg Tyr Gly Val Ser	Gly		
4720	26580	26585	26590	
4721 Ser Asp Gln Thr Leu Thr Ile Lys Gln Ala Ser	His Arg Asp Glu	Gly		
4722	26595	26600	26605	
4723 Ile Leu Thr Cys Ile Ser Lys Thr Lys Glu	Gly Ile Val Lys Cys	Gln		
E--> 4724	26610	26615	26620	
4725 Tyr Asp Leu Thr Leu Ser Lys Glu Leu Ser Asp	Ala Pro Ala Phe Ile			
E--> 4726	6625	26630	26635	26640
4727 Ser Gln Pro Arg Ser Gln Asn Ile Asn Glu	Gly Gln Asn Val Leu	Phe		
4728	26645	26650	26655	
4729 Thr Cys Glu Ile Ser Gly Glu Pro Ser Pro	Glu Ile Glu Trp Phe	Lys		
4730	26660	26665	26670	
4731 Asn Asn Leu Pro Ile Ser Ser Ser Asn Val	Ser Val Ser Arg Ser			
4732	26675	26680	26685	
4733 Arg Asn Val Tyr Ser Leu Glu Ile Arg Asn	Ala Ser Val Ser Asp	Ser		
E--> 4734	26690	26695	26700	
4735 Gly Lys Tyr Thr Ile Lys Ala Lys Asn Phe	Arg Gly Gln Cys Ser	Ala		
E--> 4736	6705	26710	26715	26720
4737 Thr Ala Ser Ile Met Val Leu Pro Leu Val	Glu Glu Pro Ser Arg	Glu		
4738	26725	26730	26735	
4739 Val Val Leu Arg Thr Ser Gly Asp Thr Ser	Leu Gln Gly Ser Phe	Ser		
4740	26740	26745	26750	
4741 Ser Gln Ser Val Gln Met Ser Ala Ser Lys	Gln Glu Ala Ser Phe	Ser		
4742	26755	26760	26765	
4743 Ser Phe Ser Ser Ser Ala Ser Ser Met Thr	Glu Met Lys Phe Ala			
E--> 4744	26770	26775	26780	
4745 Ser Met Ser Ala Gln Ser Met Ser Met Gln	Glu Ser Phe Val Glu			
E--> 4746	6785	26790	26795	26800
4747 Met Ser Ser Ser Phe Met Gly Ile Ser Asn	Met Thr Gln Leu Glu			
4748	26805	26810	26815	
4749 Ser Ser Thr Ser Lys Met Leu Lys Ala Gly	Ile Arg Gly Ile Pro	Pro		
4750	26820	26825	26830	
4751 Lys Ile Glu Ala Leu Pro Ser Asp Ile Ser	Ile Asp Glu Gly Lys	Val		
4752	26835	26840	26845	
4753 Leu Thr Val Ala Cys Ala Phe Thr Gly Glu	Pro Thr Pro Glu Val	Thr		
E--> 4754	26850	26855	26860	
4755 Trp Ser Cys Gly Gly Arg Lys Ile His Ser	Gln Glu Gln Gly Arg	Phe		
E--> 4756	6865	26870	26875	26880

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TIME: 13:24:54

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4757 His Ile Glu Asn Thr Asp Asp Leu Thr Thr Leu Ile Ile Met Asp Val
4758 26885 26890 26895
4759 Gln Lys Gin Asp Gly Gly Leu Tyr Thr Leu Ser Leu Gly Asn Glu Phe
4760 26900 26905 26910
4761 Gly Ser Asp Ser Ala Thr Val Asn Ile His Ile Arg Ser Ile
4762 26915 26920 26925

VERIFICATION SUMMARY
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L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:2654 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2
M:332 Repeated in SeqNo=2